ASPECTUAL DISTINCTIONS IN SḴWX̱WÚ7MESH

by

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Abstract

The classification of predicates according to their aspectual properties has a long history, dating back to Aristotle. Perhaps the most influential classification can be attributed to Vendler (1967). The time schemata to distinguish his four classes relies on a combination of entailment patterns and behaviours of "verbs" in different structures. Since Vendler, many researchers have revisited this classification, differing on both the proposed number of classes as well as the ways in which they are derived. Although they use different diagnostics to motivate their systems, what these approaches seem to share in common is the claim that aspectual classes are universal. This thesis addresses this claim and proposes that based on data from Sḵwx̱wú7mesh (a.k.a. Squamish), the representations of predicates vary cross-linguistically. I argue for a classification based on the presence/absence of intrinsic initial and final points in predicate representations.

Chapters Two and Three are concerned with final points and initial points, respectively. I present four diagnostics which I argue test for the presence of final points and two diagnostics that test for the presence of initial points. Based on the results of these tests, I propose a modification of Rothstein's (2004) predicate templates (that in turn are a modification of Dowty's 1979 templates) to account for the classification of Sḵwx̱wú7mesh predicate classes that emerges.

Chapters Four and Five are concerned with perfectivity and imperfectivity, respectively. In these chapters, I motivate the claim that Sḵwx̱wú7mesh has both a progressive marker and an imperfective marker. I propose that adopting Dowty's (1979) analysis of the progressive and Kratzer's (1998) analysis of the imperfective, along with the predicate representations introduced in chapters two and three, can derive the readings of progressive and imperfective predicates in Sḵwx̱wú7mesh.

Based on a small study involving 10 native speakers of English who are not linguists, in Chapter Six I briefly revisit English aspectual classes. Using the results of some of the diagnostics from chapters two and three, I show the contrast between English and Sḵwx̱wú7mesh predicate representations, highlighting the claim that aspectual classes do indeed vary cross-linguistically.

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List of Abbreviations

Sḵwx̱wú7mesh data

1	=	first person
2	=	second person
3	=	third person
CAUS	=	causative
CONJ	=	conjunction
CNJ	=	conjunctive
DEM	=	demonstrative
DET	=	determiner
ERG	=	ergative
FUT	=	future
IMPERF	=	imperfective
INSTR	=	instrumental
INTR	=	intransitive
IRR	=	irrealis
NEG	=	negation
NOM	=	nominalizer
OBJ	=	object
OBL	=	oblique
PART	=	particle
PASS	=	passive
PAST	=	past
PL	=	plural
POSS	=	possessive
Q	=	question marker
REDUP	=	reduplicant
RL	=	realis
RLP	=	relative pronoun
SBJ	=	subjunctive
SG	=	singular
S	=	subject
TR	=	transitivizer
TR(LC)	=	limited control transitivizer

Comox data

Cnj	=	conjunctive subject
CTr	=	control transitive
Erg	=	ergative subject
Indc	=	indicative subject
Neg	=	negative
NTr	=	noncontrol transitive
sg	=	singular
lv	=	link vowel

St'át'imcets data

act	=	active intransitivizer
DIR	=	directive
MID	=	middle
ooc	=	out of control
su	=	subject

Sənčáθən

ACC	=	accusative
AUX	=	auxiliary
CTR	=	control transitivizer
D	=	determiner
NCTR	=	noncontrol transitivizer
SUB	=	subject

Dëne Sųłiné data

Cl	=	classifier
CM	=	conjugation marker
gd	=	gender
O	=	object
P	=	adposition
Perf	=	perfective
S	=	subject
th	=	thematic

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Chapter 1: Determining Aspectual Meaning

The study of aspect has been likened to a dark and savage forest full of "obstacles, pitfalls, and mazes which have trapped most of those who have ventured into this much explored but poorly mapped territory"

(Macaulay 1978, as quoted in Binnick 1991:135)

1. On the (non-)universality of aspectual meaning

The goal of this thesis is to examine predicate meanings in Sḵwx̱wú7mesh, a Central (Coast) Salish language of the Northwest coast of North America.[1] At first glance, Sḵwx̱wú7mesh predicates seem to cover the same range of meanings as their English counterparts. This is illustrated with some examples below:

(1) a. chen paym
1S.SG rest
(i) 'I rested.'
(ii) 'I'm resting.' ACTIVITY

b. chen p'aya̱k-an ta tetxwem
1S.SG fix-TR DET car
'I fixed the car.' ACCOMPLISHMENT

c. chen wi7xw-em
1S.SG fall-INTR
'I fell.' ACHIEVEMENT

However, on closer inspection, while the English forms are associated with a single meaning, the corresponding forms in Sḵwx̱wú7mesh may have two interpretations, as the activity example in (a) shows. This is one example of the way in which languages differ from each other in terms of how they organize predicate meaning.

Another example of the way in which predicate meaning in Sḵwx̱wú7mesh differs from English has to do with whether or not the event described by the predicate must come to an end. That is, while some verbs have a final point of culmination as part of their inherent meaning, others do not. This difference may not be immediately obvious. For example, at

[1] See Appendix A for background on the Sḵwx̱wú7mesh language.

first glance, the meaning of the English predicate 'write a story' is identical to its Sḵwx̱wú7mesh counterpart. The sentences in (2) below are understood as describing situations in which the action of writing has come to an end and has culminated in a letter being written:

(2) a. I wrote a letter.

b. chen x̱el'-t ta sx̱wex̱wiy'am'
1S.SG wrote-TR DET story
'I wrote a story.'

However, if we try to explicitly deny that the event came to an end and culminated, the two languages are observed to behave differently: in English this yields a contradiction (marked by #), but in Sḵwx̱wú7mesh it does not. This is illustrated by the sentences in (3) below:

(3) a. #I wrote a letter, but I didn't finish writing it.

b. chen x̱el'-t ta sx̱wex̱wiy'am' welh haw ḵ-an
1S.SG wrote-TR DET story CONJ NEG IRR-1CNJ
i huy kwi-n-s wa x̱el'-nexw
PART finish DET-1POSS-NOM IMPERF write-TR(LC)
'I wrote a story but I didn't finish writing it.'

These are the types of subtle differences that provide us with evidence that, although all languages divide verbs into classes, the basis for these classifications is not necessarily the same in all languages. This is one of the main claims of the thesis.

I will show that, in Sḵwx̱wú7mesh, predicate meanings are classified in terms of whether the event described has a distinct beginning (an "initial point"), or a distinct end (a "final point"). These findings converge with previous studies of verb meanings, where the importance of final points in the classification of verb types has long been recognized. Final points are often discussed in terms of notions such as telicity (initially by Garey 1957) or boundedness (Allen 1966), for example. However, the role of initial points has not figured prominently in analyses of aspectual meanings, so I believe the present study is novel in that respect.

In this thesis, I argue that (i) predicates can be distinguished on the basis of initial and final points and the types of (sub)events they contain, (ii) the readings induced by perfective/imperfective markers is predictable from the representations (and the meaning of the perfective/imperfective markers) and (iii) languages can differ with respect to presence/absence of initial and final points in their predicate representations. In the following section, I present an overview of how these claims are motivated.

2. What is aspect?

Aktionsart refers to the aspectual properties of a given predicate; for many, the contrast that is crucial here is whether or not the predicate is intrinsically bounded with respect to its temporal properties. Consider, as an example, the sentences below (all given in the simple past, for consistency); the predicates in these sentences belong to different classes based on their inherent meanings:

(4)	a.	John was tall.	**STATE**
	b.	John arrived.	**ACHIEVEMENT**
	c.	John ran.	**ACTIVITY**

The predicate *tall* in (a) says nothing about the beginning or ending of John's tallness, only that John had, at some time in the past, the property of being tall; in other words, the predicate is unbounded. The predicate *arrived* in (b) tells us that the entire event has occurred – it is bounded. Finally, the predicate *ran* in (c) tells us that the running must have started at some specific identifiable time (unlike John's tallness), though it tells us nothing about when the running ended. In fact, it could be the case that John is still running (contra (b) where it could not be the case that John is still arriving), as shown by the data below:

(5)	a.	John ran and is still running.
	b.	#John arrived and is still arriving.

This suggests that the predicate *run* is bounded with respect to its beginning, but unbounded with respect to its ending. The differences between these sentences are attributed to the

predicates themselves, and while their use may vary from sentence to sentence, they are understood as inherently coded with this information, which is why this is often referred to as *lexical aspect*, or in Smith's (1997) terms, *situation aspect*.

Once a predicate is situated within a sentence, it can then be viewed in different ways; this is what *grammatical aspect* refers to - how the event or state of a given sentence is expressed. Consider the following sentences:

(6) a. John built a house last year (# but he never finished it).
PERFECTIVE ACCOMPLISHMENT

b. John was building a house last year (but he never finished it).
IMPERFECTIVE ACCOMPLISHMENT

The sentences above contain the same type of event (an *accomplishment*), but are expressed in sentences with different grammatical aspects: the sentence in (a) is in the perfective and conveys that the entire event of building a house took place; this is why the sentence is incompatible with a conjoined sentence that contains an assertion of incompletion. The sentence in (b), on the other hand, is given in the imperfective aspect and conveys only that the building event was in-progress last year; the sentence does not provide any information about whether or not the event was completed. This is why the sentence, unlike the perfective sentence in (a), is compatible with a conjoined sentence that contains an assertion of incompletion.

The term *aspect* is often used to refer to both lexical aspect and grammatical aspect; however, in more recent years, *aspect* is increasingly used to refer to grammatical aspect alone. Regardless of the terminology used to describe aspect or how the classification of aspect is arrived at, researchers seems to be in agreement that there are at least two different levels of aspectual classification: an inherent classification of a predicate itself and the classification of a sentence in a particular context. Thus far, most research in this area has assumed that the aspectual classifications found in English, for example, are universal; this thesis will look at both levels of aspect, and consider what a classification system that varies cross-linguistically might look like.

3. Aspectual classes and viewpoint aspect in Sḵwx̱wú7mesh: overview

In this section, I provide a brief overview of the chapters to follow. Chapters Two and Three examine initial and final points in the representations of Sḵwx̱wú7mesh predicate classes. Chapters Four and Five examine "viewpoint" aspect, and in particular, the perfective/imperfective distinction in Sḵwx̱wú7mesh. Finally, in Chapter Six, I apply the diagnostics used in the previous chapters to English activities and accomplishments. I suggest a revised account of English predicate representations.

3.1. "Open Early. Open Late":[2] initial points and final points (Chapters 2-3)

In Chapter Two, I use four diagnostics to test the presence/absence of intrinsic final points in the representations of Sḵwx̱wú7mesh predicates. : (i) culmination cancellation, (ii) event continuation (iii) the scope of *ḵilh* 'almost' and (iv) the scope of negation. I argue that these tests show that activities, accomplishments and inchoative states do not have intrinsic final points, while achievements do. I also show that the results of out of the blue judgements illustrate that accomplishments in Sḵwx̱wú7mesh, while they lack intrinsic final points, have pragmatically conditioned final points, as they have an implicature of culmination. This implicature arises with control marked transitive predicates and is derived by the addition of modality in the representation of Sḵwx̱wú7mesh accomplishments.

Chapter Three is, in some sense, the flip side of Chapter Two in that in this chapter, I examine initial points. Here I motivate the presence/absence of intrinsic initial points in the representations of Sḵwx̱wú7mesh predicates on the basis of two diagnostics: (i) the readings induced by the addition of punctual clauses/adverbials and (ii) the readings induced by the addition of the auxiliary *mi* 'come'. I argue that these tests show that activities, achievements and inchoative states have intrinsic initial points, while accomplishments do not. I also propose that punctual clauses trigger a shift operation in predicates with complex structures that include an initial BECOME sub-event (activities and inchoative states). I discuss some possible alternate analyses and show that they are not the right avenue of analysis for Sḵwx̱wú7mesh as they alone do not account for the facts.

[2] Thanks to Jeff Muelbauer (p.c.) for pointing this phrase out.

3.2. Perfective and imperfective (Chapters 4-5)

In Chapter Four, I examine the Sḵwx̱wú7mesh perfective. I argue that although sentences in Sḵwx̱wú7mesh not overtly marked for imperfective do share some of the same properties as other "non-standard" perfectives, the Sḵwx̱wú7mesh facts suggest that the perfective in this language is of the standard type. I show that Sḵwx̱wú7mesh does not have a completive perfective (as is claimed for Dëne Sųłiné; Wilhelm 2003), a semi-perfective (as is claimed for Thai, Koenig and Muansuwan 2000), nor a neutral perfective (as is claimed for Hindi; Singh 1998). Instead, I argue that Sḵwx̱wú7mesh has a standard perfective, along the lines of English. However, unlike in English, Sḵwx̱wú7mesh accomplishments do not have culmination entailments or termination entailments. I propose that this is due not to the meaning of the perfective, but the meaning of the predicates. Adopting Kratzer's (1998) analysis of the perfective, I argue that the proposed representations of Sḵwx̱wú7mesh predicates predict the readings of perfective predicates that are exhibited in the language. I examine, and ultimately reject two possible alternatives to the analysis; in particular, I argued that unmarked sentences in Sḵwx̱wú7mesh cannot be claimed to have null imperfective or progressive markers, nor can they be claimed to be in the neutral viewpoint.

As with the relation between Chapters Two and Three, Chapter Five is the flip-side of Chapter Four. In this chapter, I examine imperfectivity in Sḵwx̱wú7mesh. I propose that the Sḵwx̱wú7mesh CV reduplicant is a progressive marker and that the morpheme *wa* is the Sḵwx̱wú7mesh imperfective marker. Adopting Dowty's (1979) analysis of the progressive, I show that the predicate representations proposed in Chapters Two and Three correctly predict the readings associated with sentences containing CV reduplicated/progressive predicates. I further show that adopting Kratzer's analysis of the imperfective, along with the proposed predicate representations, correctly predict the in progress readings associated with sentences containing *wa*/imperfective predicates.

3.3. Cross-linguistic variation (Chapter 6)

In Chapter Six, I revisit aspectual classes in English. In particular, I examine initial points and final points of activities and accomplishments in the language, and compare them to the results of the present study on Sḵwx̱wú7mesh. I apply the punctual clause/adverbial diagnostic to test for initial points in English activities and accomplishments. I use the

culmination cancellation and event continuation diagnostics to test for final points. I shed some light on the discrepancies in the reported facts for English in the literature by collecting data sets from non-linguists and essentially conducting fieldwork on the language. I propose some generalizations and discuss some other factors that might affect the data. Comparing the data collected from both languages, I propose that Sḵwx̱wú7mesh and English activities have the same representation. The data suggests, however, that English accomplishments are different from Sḵwx̱wú7mesh, and thus have different representations.

In the following section, I outline my proposal for Sḵwx̱wú7mesh predicates in greater detail.

4. Proposal: the organization of predicate meanings in Sḵwx̱wú7mesh

Smith's (1997) temporal schema for aspectual classes refer to the following properties:

(7)	a.	_____	[+ Static]	Undifferentiated period of states
	b.	.....	[+ Dynamic]	Successive stages of events
	c.	I F_{Arb}		Initial and arbitrary endpoints
	d.	I F_{Nat}		Initial and natural endpoints

(p. 23; ex. 7)

These properties distinguish the following five temporal schemata in her system:

(8)	a.	Activities	I.....F_{Arb}
	b.	Accomplishments	I.....$F_{Nat\ R}$
	c.	Semelfactives	E
	d.	Achievements	.....E_R.....
	e.	States	(I)_____(F)

(p. 23-32)

As Smith states, "[t]he initial endpoints of events are natural since they represent a change from a state of rest. The final endpoints are natural or arbitrary" (p. 22). In this thesis, I formalize these notions of initial and final points in the representations of Sḵwx̱wú7mesh

predicates. However, I propose that the presence/absence of initial and final points in Sḵwx̱wú7mesh are not like Smith's inventory for English given above.

Initial points are distinguished from final points based on where they appear in the event, that is, whether they are an initial sub-event (e_1) or a final sub-event (e_2). This would suggest the following possible structures, for example:

(9) a. Initial point: $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1)} \wedge (DO(P))(e_2)]$

b. Final point: $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (DO(P))(e_1) \wedge \mathbf{(BECOME(Q))(e_2)}]$

The representation in (a) states that there is an event that consists of two sub-events, the first of which is an initial BECOME event and the second of which is a final DO event. The representation in (b) states the reverse: there is an event that consists of two sub-events, the first of which is an initial DO event and the second of which is a final BECOME event.

If the predicate contains a single BECOME event, this event is both the initial and final point:

(10) Initial/Final point: $\lambda e.(BECOME(P))(e)$

I propose the following inventory of predicate classes in Sḵwx̱wú7mesh, based on the presence/absence of initial and final points:

(11) *Sḵwx̱wú7mesh predicates: initial and final points*

	Initial Point	**Final Point**
Activity *swim, rest, laugh*	✓	×
Accomplishment *write a book, fix the car*	×	×
Achievement *win, arrive, find a rock*	✓	✓
Inchoative State[3] *(get) angry, (get) cloudy*	✓	×

[3] See Appendix B for further discussion on states in Sḵwx̱wú7mesh.

A comparison between the initial and final points of Sḵwx̱wú7mesh and English predicates is given in the table below:

(12) *Predicate representations: Sḵwx̱wú7mesh vs. English*

	Sḵwx̱wú7mesh Predicates	**English Predicates**
Activity *swim, rest, laugh*	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	$\lambda e.(\text{DO}(P))(e)$
Accomplishment *write a book, fix the car*	$\lambda e.[\text{DO}(P))(e) \wedge [\forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates } (e') \text{ in } w' \wedge \text{e causes e' in w'}]]]]$	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{DO}(P))(e_1) \wedge (\text{BECOME}(P))(e_2)]$
Achievement *win, arrive, find a rock*	$\lambda e.(\text{BECOME}(P))(e)$	$\lambda e.(\text{BECOME}(P))(e)$
Inchoative State *(get) angry, (get) cloudy*	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$	$\lambda e.P(e)$

In the following section, I examine previous aspectual classifications in some detail and comment on their strengths and drawbacks.

5. Previous aspectual classifications

In this section, I examine some of the earlier literature on verb classes (§5.1), some feature-based classifications (§5.2.), structurally-based aspectual classifications (§5.3) and operator-based classifications (§5.4.). For each, I outline the conceptual claims of these classifications, and their empirical results. I discuss both the advantages and disadvantages of each of these approaches.

5.1. "Verb" classes

5.1.1. *Actualitity, movement* and *action*: Aristotle

The classification of aspectual classes dates back to Aristotle. He suggests a three-way classification that distinguishes states from events, and among the events, distinguishes those which have inherent endpoints and those that do not: *actuality*, or the "existence of the thing" (corresponding to the more common label of "state" (Rosen 1999)), *movement* (an incomplete process or an event lacking an inherent terminus) and *action* (a process with an inherent terminus).

Kenny (1963) adopted Aristotle's three-way classification and developed tests to distinguish between events with and without natural/inherent endpoints; in his classification, the test distinguished between *activities* (actions with no terminus) and *performances* (actions with terminus). The test uses semantic entailments in the imperfective to determine whether an event can be construed as having taken place when it is still in progress. If it can, the event is an activity (a), if it cannot, the event is a performance (b)

(13) a. *Activity*
'John is pushing a cart' entails that John pushed a cart.

b. *Performance*
'John is walking to school' does not entail that John walked to school.

5.1.2. *Activities, accomplishments, achievements* and *states*: Vendler (1967)

Probably the most influential classification can be attributed to Vendler (1967), upon which much of current research is based. He classifies verbs[4] into four groups: *states*, *activities*, *accomplishments*, and *achievements*. Vendler uses the contrast between verbs that can occur in the progressive and verbs that cannot as a diagnostic to distinguish between activities and accomplishments on the one hand and states and achievements on the other. The examples below illustrate that activities and accomplishments can occur in the progressive while states and achievements cannot; the question in (a) can only be answered by the sentences in (b) and (c) but not by those in (d) or (e):

(14) a. Q: What are you doing?

b. A1: I am running. (activity)

c. A2: I am building a house. (accomplishment)

d. A3: #I am knowing him. (state)

e. A4: #I am recognizing him. (achievement)

(adapted from Vendler 1967:99)

[4] I use the term "verbs" here on purpose (as opposed to VPs), as this is Vendler's term and became the focus on much discussion following his work. In particular, it has been discussed at length that accomplishments are not verbs but rather VPs; often they are distinguished from activities based on the presence and/or the type of object with which they occur (see Verkuyl 1993 and Rosen 1999, and references therein for discussion).

Vendler further points out the contrast between a state and activity where a yes/no question containing a state in the simple present and the answer given below is an appropriate sequence (15), while the same sequence with an activity is not (16) (setting aside, as Dowty emphasizes, a different meaning of running (presumably the habitual reading) that may be induced):

(15) a. Q: Do you know...?
b. A: Yes I do.

(16) a. Q: Do you run?
b. A: Yes I do.

(adapted from Vendler 1967:99)

With respect to this contrast between states and activities, Vendler suggests that

> ...running, writing, and the like are processes going on in time, that is, roughly, that they consist of successive phases following one another in time...But although it can be true of a subject that he knows something at a given moment or for a certain period, knowing and its kin are not processes going on in time.
>
> (p. 99-100)

Vendler distinguishes between activities and accomplishments (the class of verbs that admit, as he states "continuous tenses") in the following way. Take for example the following two sentences:

(17) a. John is pushing the cart. (activity)
b. John is running a mile. (accomplishment)

If John stops pushing the cart, it will still be true that he did push a cart; however, if John stops running a mile, it may not be true that he did run a mile. As Vendler states,

> ...if someone stops running a mile, he did not run a mile...But the man who stops pushing the cart did push it. Thus we see that while running or pushing a cart has no set terminal point, running a mile and drawing a circle do have a

> "climax", which has to be reached if the action is to be what it is claimed to be.
>
> (p. 100)

Along the same lines, Vendler contrasts the two classes with the questions "For how long..." and "How long did it take...". An activity can go on for a time but does not take any definite time, while an accomplishment can also go on for some time, it takes a certain time to complete. Consider the following sentences where "for how long" is appropriate only with activities while "how long did it take" is only appropriate with accomplishments:

(18) *Activity*
- a. For how long did he push the cart?
- b. #How long did it take to push the cart?

(19) *Accomplishment*
- a. How long did it take to draw the circle?
- b. #For how long did he draw the circle?

(adapted from Vendler 1967: 100-1)

Activities and accomplishments can also be contrasted by their entailment patterns. Much like Bennett and Partee's (1978) *sub-interval property*, which draws on these intuitions, Vendler notes that

> If it is true that someone has been running for half an hour, then it must be true that he has been running for every period within that half hour. But even if it is true that a runner has run a mile in four minutes, it cannot be true that he has run a mile in any period which is a real part of that time, although it remains true that he was running, or that he was engaged in running a mile, during any substretch of those four minutes. It appears, then that running and it kind go on in time in a homogenous way; any part of the process is of the same nature as the whole. Not so with running a mile or writing a letter; they also go on in time, but they proceed toward a terminus which is logically necessary to their being what they are.
>
> (p. 101)

With respect to the verbs that do not occur in the progressive, Vendler suggests that they divide into two types; some "can be predicated only for single moments of time...while

others [verbs that cannot occur in the progressive] can be predicated for shorter or longer periods of time" (p. 102). Achievements occur at definite moments, while states occur over short or long periods of time; this contrast is illustrated in the examples below:

(20) a. At what time did you reach the top? At noon sharp.
b. At what moment did you spot the plane? At 10:53 am.

(21) a. For how long did you love her? For three years.
b. How long did you believe in the stork? Till I was seven.

(Vendler 1967: 102-3)

The fact that achievements are described as occurring at definite moments poses a problem for sentences such as the following; the following felicitous sentences containing achievements are predicted to be infelicitous since the sentence suggests that the achievement took time, rather than occurring at a moment:

(22) a. It took him three hours to reach the summit.
b. He found it in five minutes.

For sentences such as these, Vendler suggests that

> one does not mean that the 'reaching' of the summit went on during those hours. Obviously it took three hours of climbing to reach the top....If I write a letter in an hour, then I can say I am writing a letter at any time during that hour; but if it takes three hours to reach the top, I cannot say I am reaching the top at any moment of that period.
>
> (p.104)

Vendler concludes his discussion with the following examples that illustrate the time schemata he argues for:

(23) a. *Activities*
A was running at time t means that time instant *t* is on a time stretch throughout which *A* was running.

b. *Accomplishments*
A was drawing a circle at t means that *t* is on the time stretch in which *A* drew that circle.

c. *Achievements*
A won a race between t_1 and t_2 means that the time instant at which *A* won that race is between t_1 and t_2.

d. States
A loved somebody from t_1 to t_2 means that at any instant between t_1 and t_2 *A* loved that person.

5.1.3. Advantages and disadvantages

One of the major criticims of Vendler's approach is that he classifies "verbs" and as such ignores the fact that subjects and objects can have an effect on the classes to which a verb belongs. It should be noted that Vendler alludes to this problem himself (boldface has been added)

> Distinctions have been made among verbs suggesting processes, states, dispositions, occurrences, tasks, achievements, and so on. **Obviously these differences cannot be explained in terms of time alone: other factors, like the presence or absence of an object, conditions, intended states of affairs, also enter the picture**. Nevertheless one feels that the time element remains crucial; at least it is important enough to warrant separate treatment. Indeed, as I intend to show, if we focus our attention primarily upon the time schemata presupposed by various verbs, we are able to throw light on some of the obscurities which still remain in these matters.
>
> (p. 97)

Although the predicate classes I propose for Sḵwx̱wú7mesh do not correspond precisely to Vendler classes, I use his terminology for the following reasons: (i) The classes that Vendler refers to as *accomplishment*, *achievement*, *activity* and *state* share the same basic meanings that are associated with predicate classes in Sḵwx̱wú7mesh. (ii) I argue that the meanings associated with predicate classes can differ, which accounts for the differences between Sḵwx̱wú7mesh and English, for example. This is an alterative to claiming that the same classes are found in every language and the difference is that Sḵwx̱wú7mesh simply does not exhibit those classes, but has different ones. (iii) Sḵwx̱wú7mesh, like all Salish languages, has a rich transitivity system that encodes *control* as well as transitivity (see Thompson 1979,

among others). This suggests that some of the distinctions observed cross-linguistically may be attributed to these differences in transitivity and not strictly a difference in the aspectual system per se.

5.2. Feature-based definitions of predicate classes

Featurally based aspectual systems use features, which are often binary, to derive aspectual classes. Some of these systems have two binary features that derive the four aspectual classes introduced by Vendler; for example, Hoeksema (1983), following Mourelatos (1978), proposes the features ±count (whether events can be counted) and ±duration (whether event takes place over time). Other systems (e.g., Moens 1987) also propose use two binary features, but claim that they derive four *event* classes, leaving *states* aside. Smith (1997) proposes a three binary feature system that derive five aspectual classes (Vendler's four classes, and an additional class Smith labels *semelfactive*), leaving three potential classes unattested. Carlson (1981) also proposes three binary features, but derives six aspectual classes (Vendler's four, and an additional two classes *momentaneous* and *dynamic*), leaving two classes unattested.

I limit my discussion in this section to two feature-based aspectual systems: Carlson (1981) and Smith (1997). See Rosen (1999) for further detailed discussion of other feature-based systems.

5.2.1. [±POINT, ±EXTENDED, ±CONTINUOUS]: Carlson (1981)

Using a number of tests involving grammaticality judgements, Carlson (1981) proposed the following three binary features:

(24) a. ±POINT
- whether or not a *momentaneous* adverbial applies to a given sentence
- e.g., *at once*, *at that (very) moment*, *at 8:30*

b. ±EXTENDED
- whether or not the progressive aspect (*-ing* in English) applies to a given sentence

c. ±CONTINUOUS
- whether or not a *durative* adverbial applies to a given sentence
- e.g., *for a while, from one to ten o'clock, all day (long)*

These three binary features derive six classes: four of these classes parallel Vendler's (a-d) two additional classes are introduced (e-f, shaded in the chart below):

(25) *Carlson's Feature System (1981)*

	Class	Point	Extended	Continuous
a.	Activity	-	+	+
b.	Accomplishment	-	+	-
c.	Achievement	+	+	-
d.	State	+	-	+
e.	Momentaneous	+	-	-
f.	Dynamic	+	+	+

Vendler's achievements divide into two classes in Carlson's system: *achievement* and *momentaneous* predicates. They both are [+POINT] and [-CONTINUOUS], but the achievement predicates are [+extended] while momentaneous predicates are [-EXTENDED]. Momentaneous sentences are compatible with momentaneous adverbs in non-progressive sentences. This is illustrated below:

(26) a. At that point, I **hit** him.
b. I **noticed** it at once.
c. Just when the light went on, he **blinked**.

(p. 37, ex. 6a-c)

However, a contrast emerges when the two types of predicate are given in the progressive aspect. Achievement predicates are compatible with the progressive while momentaneous predicates are incompatible. This is shown in the two sets of data below; the underlined clauses and prepositions in each set of data are momentaneous adverbials and both predicate types are compatible with them (yielding a +POINT feature assignment). However, as these data show, only achievement predicates are ALSO compatible with the progressive (yielding a +EXTENDED feature assignment), while momentaneous predicates are marked in these cases

(yielding a -EXTENDED feature assignment).[5] In the examples below, momentaneous adverbials are underlined and predicates are bolded:

(27) *Achievement* [+POINT, +EXTENDED, -CONTINUOUS]

a. At that point he was **closing** the door.

b. He was **winning** the tournament when he missed that ball.[6]

c. The dog was **attacking** me when the owner intervened.[7]

d. At that point, the plane was **taking** off from the ground.

(p. 38, ex. 7f-i)

(28) *Momentaneous* [+POINT, -EXTENDED, -CONTINUOUS]

a. !At that point I was **hitting** him.[8]

b. !I was **noticing** it at once.

c. !Just when the light went on, he was **blinking**.

(p. 38, ex. 7a-c)

Carlson also proposes a class of *dynamic* predicates which lie somewhere between Vendler's *statives* and *activities*. All three types share the [+CONTINUOUS] feature; stative and dynamic predicates share the feature [+POINT], while activity predicates do not. Thus, in the examples below, activities are incompatible with momentaneous adverbials (yielding marked sentences) while stative and dynamic predicates are compatible:

---

[5] Carlson uses the "!" notation to indicate that the sentence is marked in some way; for her, marked means that some additional comment is needed. This is to say that sentences may have other interpretations that are not under consideration, or they may require artificial contexts to be judged grammatical. It is not crucial for Carlson to demonstrate that these sentences are NEVER accepted, only that they differ from the ones that are always accepted, under any context. The marked sentences translate to a "-" notation in the chart above which suggests that they lack a given feature, or have a "-" assignment for that feature.

[6] This has a different interpretation than the others in the set in that no part of the winning event can have taken place, though a part of the opening of the door can.

[7] It is not clear why Carlson categorizes *attack* as an achievement.

[8] The sentences in (a) and (c) have a different interpretation than the sentence in (b). (a) and (c) can be interpreted as events that occur over and over (hit over and over, blink over and over). (b) lacks this meaning.

(29) *Activity* [-POINT, +EXTENDED, +CONTINUOUS]

a. !The children **played** when I returned.[9]

b. !At sunrise, I **walked** eastward.

(p. 38, ex. 6n-o)

(30) *Dynamic* [+POINT, +EXTENDED, +CONTINUOUS]

a. At seven o'clock, the caravan **stood** in its old place.

(p. 38, ex. 6j)

(31) *Stative* [+POINT, -EXTENDED, +CONTINUOUS]

a. He **was a full-grown man** when I was born.

b. At that point I **remembered** the rule.

(p. 37, ex. 6d-e)

On the other hand, activity and dynamic predicates share the feature [+EXTENDED] while stative predicates do not. This is shown in the data below where activity and dynamic predicates are compatible with the progressive while stative predicates are not:

(32) *Activity* [-POINT, +EXTENDED, +CONTINUOUS]

a. The children were **playing** when I returned.

b. At sunrise I was **walking** eastward.

(p. 38, ex. 7n-o)

(33) *Dynamic* [+POINT, +EXTENDED, +CONTINUOUS][10]

At seven o'clock, the caravan was **standing** in its old place.

(p. 38, ex. 7j)

[9] The sentences in (a) and (b) are completely grammatical not only by my own judgement, but by the judgement of native English speakers who are non-linguists; the interpretation is an inceptive/ingressive event (i.e., the children began to play when the speaker returned).

[10] Laurel Brinton (p.c.) suggests that the category *dynamic* is questionable and notes that Carlson provides only one example of this type.

(34) *Stative* [+POINT, -EXTENDED, +CONTINUOUS]

a. !He was **being a full-grown man** when I was born.

b. !At that point I was **remembering** the rule.

(p. 38, ex. 7d-e)

Carlson claims that many of his examples are quite admissible with a secondary interpretation. For example, activity predicates yield inceptive readings with momentaneous adverbials (a) and states in the progressive can yield the sense of an intentional activity (b):

(35) a. !At sunrise, I **walked** eastward.

(p. 38, ex 6(o))

b. !He was **being a full-grown man** when I was born.

(p. 38, ex 7(d))

The activity is (a) is taken to mean that the speaker began to walk eastward. As for (b), the state is taken to mean that the subject was behaving as though he was a full-grown man (difference in volition).[11] This difference, according to Carlson, can be in acceptability, meaning of the main verb, or contexts of use. As such, he does not take their possible use in different contexts or with different interpretations as counter examples, but as a means of showing that there is a fundamental difference between the different classes of predicates (i.e. those which do not require special contexts, or those that do not change meaning in different contexts...).

5.2.2. [±STATIC, ±DURATIVE, ±TELIC]: (Smith 1997)

Another prominent figure in the aspectual literature is Smith (1997). She presented probably the most ambitious and detailed attempt to account for the similarities and differences in aspectual systems across the world's languages. Smith proposes the following three features that derive five aspectual classes:

[11] This reading may not be available for all speakers.

(36) a. ±STATIC

b. ±DURATIVE

c. ±TELIC

Like Carlson's system, these three binary features derive eight classes: four of these classes parallel Vendler's (a-d) one additional class is introduced (e, shaded in the chart below):

(37) *Smith's aspectual feature system* (1997:20)

	Situation	±Static	±Durative	±Telic
a.	Activity	-	+	-
b.	Accomplishment	-	+	+
c.	Achievement	-	-	+
d.	State	+	+	-
e.	Semelfactive	-	-	+
f.	?	+	-	-
g.	?	+	-	+
h.	?	+	+	+

Smith's system generates a predicate type that she labels *semelfactive*[12] which she describes as instantaneous non-culminating single-stage events, but which result in no change of state. Some examples are given below:

(38) a. Mary coughed.

b. Mary knocked at the door.

c. Mary hiccupped.

d. The bird flapped its wing.

Semelfactives are distinguished from achievements in her system, which Smith classifies as instantaneous culminating events.

[12] From the Latin *semel* ('once'), which as Smith notes, is used in Slavic linguistics to refer to a suffix that indicates a single event. I argue that semelfactives do not constitute a separate aspectual class but rather they are types of activities with very defined sub-events.

±STATIC

The feature STATIC distinguishes states (+STATIC) from events (-STATIC). +STATIC predicates cannot occur in imperative sentences (a) or be complements of verbs like *persuade* or *command* (b), while -STATIC predicates can (where Smith does not cite the relevant examples, I have included my own, and my own judgements):

(39)	a.	*Imperative sentences*	
	i.	Push the cart!	*Act.* [**-STATIC**, +DUR., -TELIC]
	ii.	Wash your car!	*Acc.* [**-STATIC**, +DUR., +TELIC] (p. 40)
	iii.	Tap his shoulder!	*Sem.* [**-STATIC**, -DUR., -TELIC] (p. 46)
	iv.	Break the glass!	*Ach.* [**-STATIC**, -DUR., +TELIC]
	v.	#Know Greek![13]	*Stat.* [**+STATIC**, +DUR., -TELIC] (p. 40)

(39)	b.	*Complements of persuade or command*	
	i.	We persuaded Emily to push the cart.	*Act.* [**-STATIC**, +DUR., -TELIC] (p. 44)
	ii.	We persuaded Sam to open the door.	*Acc.* [**-STATIC**, +DUR., +TELIC] (p. 45)
	iii.	I persuaded Mary to tap his shoulder.	*Sem.* [**-STATIC**, -DUR., -TELIC] (p. 46)
	iv.	I persuaded Mary to break the glass.	*Ach.* [**-STATIC**, -DUR., +TELIC] (p. 46)
	v.	#I persuaded Mary to know Greek.	*States* [**+STATIC**, +DUR., -TELIC]

+STATIC predicates cannot occur with adverbs of manner (e.g., *carefully*, *attentively*) (c) and adverbs of instrument (e.g., *with a key*) (d), while -STATIC predicates can:

(39)	c.	*Adverbs of manner*	
	i.	Emily voluntarily pushed the cart.	*Act.* [**-STATIC**, +DUR., -TELIC] (p. 44)
	ii.	John carefully washed his car.	*Acc.* [**-STATIC**, +DUR., +TELIC] (p.40)
	iii.	She carefully tapped his shoulder.	*Sem.* [**-STATIC**, -DUR., -TELIC] (p. 46)
	iv.	She carefully broke the glass.	*Ach.* [**-STATIC**, -DUR., +TELIC]
	v.	*John carefully knew Greek.	*States* [**+STATIC**, +DUR., -TELIC] (p. 40)

[13] This test seems to be more sensitive to volition rather that a static feature, as there are a number of states that are volitional that are compatible with imperatives: *stay still, hold the baby.*

(39) d. *Adverbs of instrument*

i.	Emily pushed the cart with a stick.	*Act.* [**-STATIC**, +DUR., -TELIC]
ii.	Mary opened the door with a key.	*Acc.* [**-STATIC**, +DUR., +TELIC] (p. 40)
iii.	She tapped his shoulder with a pencil.	*Sem.* [**-STATIC**, -DUR., -TELIC]
iv.	She broke the glass with a ball.	*Ach.* [**-STATIC**, -DUR., +TELIC]
v.	*The door was open with a key.	*Stat.* [**+STATIC**, +DUR., -TELIC] (p. 40)

In English, +STATIC predicates cannot occur in the progressive (e) or in a *do* pseudo-cleft construction (f), while -STATIC predicates can:

(39) e. *Progressive*

i.	Emily was pushing the cart.	*Act.* [**-STATIC**, +DUR., -TELIC] (p. 44)
ii.	John was washing the car.	*Acc.* [**-STATIC**, +DUR., +TELIC] (p.40)
iii.	She was tapping his shoulder.	*Sem.* [**-STATIC**, -DUR., -TELIC]
iv.	He was winning the race.	*Ach.* [**-STATIC**, -DUR., +TELIC] (p. 46)
v.	*Kim was knowing the answer.	*Stat.* [**+STATIC**, +DUR., -TELIC] (p. 40)

(39) f. Do *pseudo-cleft construction*

i.	What Emily did was push the cart.	*Act.* [**-STATIC**, +DUR., -TELIC] (p. 44)
ii.	What John did was wash the car.	*Acc.* [**-STATIC**, +DUR., +TELIC] (p. 40)
iii.	What Mary did was tap his shoulder.	*Sem.* [**-STATIC**, -DUR., -TELIC] (p. 46)
iv.	What he did was win the race.	*Ach.* [**-STATIC**, -DUR., +TELIC] (p. 46)
v.	#What John did was know Greek.	*Stat.* [**+STATIC**, +DUR., -TELIC] (p. 40)

Finally, in English, +STATIC predicates yield a stative interpretation in the present perfective, while -STATIC predicates yield habitual events (g):

(39) g. *Present perfective*

i.	Emily pushes the cart.	(habitual)	*Act.* [**-STATIC**, +DUR., -TELIC] (p.44)
ii.	Sam opens the door.	(habitual)	*Acc.* [**-STATIC**, +DUR., +TELIC] (p. 45)
iii.	Mary taps his shoulder.	(habitual)	*Sem.* [**-STATIC**, -DUR., -TELIC] (p. 46)

iv. He wins the race. (habitual) *Ach.* [**-STATIC**, -DUR., +TELIC] (p. 46)

v. Ellen believes in ghosts. (stative) *Stat.* [**+STATIC**, +DUR., -TELIC] (p. 41)

A summary of these facts are given in the table below:

(40) *Properties associated with Smith's feature ±STATIC*

		+STATIC (states)	**-STATIC** (events)
a.	**imperative sentences**	×	✓
b.	**complements of persuade/command**	×	✓
c.	**adverbs of manner (*carefully, attentively*)**	×	✓
d.	**adverbs of instrument (*with a key*)**	×	✓
e.	**Progressive**	×	✓
f.	***do* pseudo-cleft construction**	×	✓
g.	**interpretation in the present perfective**	stative	habitual

±DURATIVE

The feature ±DURATIVE distinguishes states, activities and accomplishments (+DURATIVE), from semelfactives and achievements (-DURATIVE). +DURATIVE predicates are compatible with "direct durative adverbials" (e.g., *for an hour, in an hour*) (a); -DURATIVE predicates are incompatible with these adverbials (as in iv), or they yield a different interpretation, which Smith suggests is a shift to a durative interpretation of the predicate. For example, (iii) below has an ingressive reading, according to Smith, which focuses on preliminary stages of the tapping event.[14] As I show below in the discussion of the ±TELIC feature, there is a further distinction between *in* and *for* adverbials:

(41) a. *Direct durative adverbials*

i. Mary walked in the park <u>for an hour</u>. *Act.* [-STATIC, **+DUR.**, -TELIC] (p. 41)

ii. Mary built the sandcastle <u>in an hour</u>. *Acc.* [-STATIC, **+DUR.**, +TELIC] (p. 41)

iii. She tapped his shoulder <u>in an hour</u>. *Sem.* [-STATIC, **-DUR.**, -TELIC] (p. 46)

iv. #The bomb exploded <u>for an hour</u>. *Ach.* [-STATIC, **-DUR.**, +TELIC] (p. 41)

v. Mary was sick <u>for a week</u>. *Stat.* [+STATIC, **+DUR.**, -TELIC] (p. 41)

[14] This reading is not available for all speakers.

+DURATIVE predicates are compatible with inceptive and terminative morphemes (*begin, stop, finish*) (b), but -DURATIVE predicates are not (as in iv), or have different interpretations:

(41) b. *Inceptive/terminative morphemes*

i.	He began/stopped pushing the cart.	*Act.* [-STATIC, **+DUR.**, -TELIC] (p. 45)
ii.	Sam began/stopped walking to school.	*Acc.* [-STATIC, **+DUR.**, +TELIC] (p. 45)
iii.	She began/stopped tapping his shoulder.	*Sem.* [-STATIC, **-DUR.**, -TELIC] (p. 46)
iv.	#The bomb stopped exploding.	*Ach.* [-STATIC, **-DUR.**, +TELIC] (p. 42)
v.	Sam began to be angry.	*Stat.* [+STATIC, **+DUR.**, -TELIC] (p. 47)

The sentence in (iii) above is predicted to be ungrammatical or to have a different interpretation; according to Smith, semelfactives involve a shifted interpretation as multiple events. As for the sentence in (v) above, Smith predicts it to be grammatical with no change in interpretation. Smith suggests that sentences like those in (v) have change of state interpretation.

+DURATIVE predicates have inceptive interpretations with "momentary adverbials" (e.g., *at noon, at 5 o'clock exactly*) (c), -DURATIVE predicates have a direct interpretation:

(41) c. *Momentary adverbials*

i.	He pushed the cart at noon.	*Act.* [-STATIC, **+DUR.**, -TELIC] (p. 45)
ii.	They ate dinner at noon.	*Acc.* [-STATIC, **+DUR.**, +TELIC] (p. 42)
iii.	She tapped his shoulder at noon.	*Semel.* [-STATIC, **-DUR.**, -TELIC] (p. 46)
iv.	The clock struck at noon.	*Ach.* [-STATIC, **-DUR.**, +TELIC] (p. 42)
v.	John was dumbfounded when Harry threw the glass.	*States* [+STATIC, **+DUR.**, -TELIC] (p. 49)

While the semelfactive in (iii) can have the predicted direct interpretation of predicates with a [-durative] feature, it also has an inceptive interpretation, which is not accounted for. Furthermore, while the state in (v) has an inceptive interpretation, it also has different reading which is unaccounted for here. In fact, with many stative sentences, the inceptive reading is not necessarily even the most natural, as illustrated by the data below:

(41) v'. The baby was asleep at noon. (p. 47)

The data in (cii) above is not representative of the entire class of accomplishments, which in general seem to require specific contexts in order to be judged felicitous with an inceptive interpretation. The following sentences illustrate that many accomplishments are not judged felicitous with momentary adverbials (see Chapter Six for further discussion):

(41') a. #Mary fixed the car at 5 o'clock.
b. #Mary built a sandcastle at 5 o'clock.
c. #Mary read a book at 5 o'clock.

+DURATIVE predicates are compatible with what Smith calles "indirect durative adverbials" (e.g., *slowly*, *quickly*) (d), while -DURATIVE predicates are not:

(41) d. *Indirect durative adverbials*

i.	He slowly pushed the cart.	*Act.* [-STATIC, **+DUR.**, -TELIC] (p. 45)
ii.	Sam slowly walked to school.	*Acc.* [-STATIC, **+DUR.**, +TELIC] (p. 45)
iii.	She slowly tapped his shoulder.	*Semel.* [-STATIC, **-DUR.**, -TELIC] (p. 46)
iv.	#John slowly broke the glass.	*Ach.* [-STATIC, **-DUR.**, +TELIC] (p. 47)
v.	*Mary was slowly sick.	*States* [+STATIC, **+DUR.**, -TELIC] (p. 47)

The sentence in (iii) is predicted to be ungrammatical as semelfactives have –durative features; however, Smith suggests that these predicates get ingressive interpretations. As for the stative in (v), Smith predicts the sentence to be grammatical as statives have a +durative feature; however, as shown above, Smith judges the sentence ungrammatical and suggests that these adverbs imply activity.

Finally, imperfective viewpoints (e) focus on internal states of +DURATIVE situations, but preliminary stages of -DURATIVE events:

(41) e. *Imperfective*

i.	Emily was pushing the cart.	(inter)	*Act.* [-STATIC, **+DUR.**, -TELIC] (p.44)
ii.	The door was opening.	(inter)	*Acc.* [-STATIC, **+DUR.**, +TELIC] (p.42)
iii.	Mary was knocking.	(?)	*Sem.* [-STATIC, **-DUR.**, -TELIC]
iv.	Mary was reaching the top.	(prelim)	*Ach.* [-STATIC, **-DUR.**, +TELIC] (p.42)
v.	#Kim was knowing the answer.	(?)	*Stat.* [+STATIC, **+DUR.**, -TELIC] (p. 40)

(42) *Properties associated with Smith's feature ±DURATIVE*

		+DURATIVE (states, act., acc.)	**-DURATIVE** (semel., ach.)
a.	**Direct durative adverbials** (***for an hour, in an hour***)	✓	✗[15]
b.	**Inceptive, terminative morphemes** (***begin, stop, finish***)	✓	✗[16]
c.	**Momentary adverbials** (***at noon, at 5 o'clock exactly***)	Inceptive interpretation	Direct interpretation
d.	**Indirect durative adverbials** (***slowly, quickly***)	✓	✗
e.	**Imperfective viewpoint**	internal stages	preliminary stages

±TELIC

Smith's feature ±TELIC distinguishes accomplishments and achievements (events with an inherent endpoint, +TELIC), from semelfactives and activities (events without an inherent endpoint, -TELIC). +TELIC predicates are compatible with verbs and adverbials of completion (e.g., *finish*, *in an hour*) (a), while -TELIC predicates are not:

(43) *Verbs and adverbials of completion*

i.	?Mary finished walking in the park.	*Act.* [-STATIC, +DURATIVE, **-TELIC**] (p. 43)
ii.	Mary finished walking to school.	*Acc.* [-STATIC, +DURATIVE, **+TELIC**] (p. 43)
iii.	?She finished tapping his shoulder.	*Sem.* [-STATIC, -DURATIVE, **-TELIC**] (p. 46)
iv.	#John finished breaking the glass.[17]	*Ach.* [-STATIC, -DURATIVE, **+TELIC**] (p. 47)
v.	?John finished being angry.	*States* [+STATIC, +DURATIVE, **-TELIC**]

[15] Or have different interpretations.
[16] Or have different interpretations.
[17] This sentence is predicted to be felicitous. Smith says elsewhere that achievements are "instantaneous and Telic...They disallow terminative and simple duratives" (p. 46).

+TELIC predicates are incompatible with adverbs of simple duration (e.g., *stop, for an hour*) (b), while -TELIC predicates are compatible. However, Smith states that the verb stop is fine with telic predicates, but does not indicate completion (p. 43). This explains why the sentence in (ii) is fine, even though it is predicted to be bad. Smith claims that the sentence in (iii) is a shifted multiple event reading.

(44)	b.	*Adverbs of simple duration*		
	i.	Mary stopped walking in the park.	*Act.* [-STATIC, +DURATIVE, **-TELIC**]	(p. 43)
	ii.	Mary stopped walking to school.	*Acc.* [-STATIC, +DURATIVE, **+TELIC**]	(p. 43)
	iii.	She stopped tapping his shoulder.	*Sem.* [-STATIC, -DURATIVE, **-TELIC**]	(p. 46)
	iv.	#John broke the glass for an hour.	*Ach.* [-STATIC, -DURATIVE, **+TELIC**]	(p. 47)
	v.	Mary was sick for three days.	*Stat.* [+STATIC, +DURATIVE, **-TELIC**]	(p. 47)

+TELIC predicates are compatible with main verbs of time such as *take an hour*, but -TELIC predicates are compatible with main verbs of time such as *spend an hour* (c).

(44)	c.	*Main verbs of time*		
	i.	I spent an hour listening to music.	*Act.* [-STATIC, +DURATIVE, **-TELIC**]	(p. 43)
	i'	?It took me an hour to listen to music.		(p. 43)
	ii.	?I spent an hour writing the letter.[18]	*Acc.* [-STATIC, +DURATIVE, **+TELIC**]	(p. 43)
	ii.'	It took me an hour to write the letter.		(p. 43)
	iii.	I spent an hour knocking.	*Sem.* [-STATIC, -DURATIVE, **-TELIC**]	
	iii'	It took me an hour to knock.		
	iv.	?John spent an hour leaving.	*Ach.* [-STATIC, -DURATIVE, **+TELIC**]	
	iv.	It took John an hour to leave.[19]		(p. 47)
	v.	I spent an hour being angry.	*Stat.* [+STATIC, +DURATIVE, **-TELIC**]	
	v'	?It took me an hour to be angry.		

[18] This sentence is fine for some speakers. Smith suggests that this sentence suggests that the letter was not finished. It is unclear to me how this bears on the claims.
[19] Smith claims this sentences has an ingressive/preliminary stage reading.

(44) *Properties associated with Smith's feature ±TELIC*

		+TELIC (acc., ach.)	-TELIC (states, act., semel.)
a.	**Verbs and adverbials of completion** (***finish, in an hour***)	✓	×
b.	**Verbs and adverbials of simple duration** (***stop, for an hour***)	×	✓
c.	**Main verbs of time**	*take*	*spend*

5.2.3. Advantages and disadvantages

Both Carlson's and Smith's systems have the advantage of attempting to account for a wide range of data that is comparable across languages. Both approaches use a variety of diagnostics and make interesting predictions that are testable. This is very appealing in both systems. However, there are a few problems with both the features and the data.

One problem is that both features systems derive more classes than are attested, and their explanations for why this is so are somewhat unsatisfactory. For Carlson, there are two classes unattested:

(45) *Carlson's Feature System (1981)*

	Class	Point	Extended	Continuous
a.	Activity	-	+	+
b.	Accomplishment	-	+	-
c.	Achievement	+	+	-
d.	State	+	-	+
e.	Momentaneous	+	-	-
f.	Dynamic	+	+	+
g.	?	-	-	-
h.	?	-	-	+

The types of predicates classified as (g) are those which would be incompatible with momentaneous adverbials, the progressive and durative adverbials. The predicates in (h) would be incompatible with momentaneous adverbials and the progressive, but compatible with durative adverbials. Carlson states that these classes are not relevant; that is, in cases where both features *point* and *extended* have negative values can never be true or false as "all periods are either moments or extended" (p. 41), thus there cannot be a predicate that does

not allow either of them. The problem with this argument is that her feature [+EXTENDED] is defined as whether or not it allows the progressive. It is possible, for example, for predicates to not allow the progressive, but still go on for an extended period. This crucially relies on the assumption that there are only those two periods, moments and extended, and no others.

Smith's system only includes five classes, which leaves three classes are unattested (f-g shaded in the chart below):

(46) *Smith's aspectual feature system* (1997:20)

	Situation	**±Static**	**±Durative**	**±Telic**
a.	Activity	-	+	-
b.	Accomplishment	-	+	+
c.	Achievement	-	-	+
d.	State	+	+	-
e.	Semelfactive	-	-	-
f.	?	+	-	-
g.	?	+	-	+
h.	?	+	+	+

With respect to these classes, Smith suggests that the feature [±TELIC] is irrelevant to situations with the property [+STATIC]. It is unclear to me at this point why this would be the case. It may be that telicity is a feature of events only, but this may be a stipulation of the system.

A second problem with both systems is that the reported data are inconsistent with judgements reported by other native speakers, as I highlighted in the footnotes throughout each section. Neither Carlson nor Smith suggest how robust the judgements are, and thus it is difficult to evaluate in this respect. Many of the examples they both use are not necessarily representative of an entire class of predicates they refer to.

A problem quite relevant to this thesis is that Smith does not explain the relationship between the features she proposes for the different aspectual classes and the diagnostics she uses; for example, it is not clear why predicates with a [+DURATIVE] feature would get inceptive readings with momentaneous adverbs. For Carlson, many of the "secondary interpretations" that she refers to are not in fact, secondary at all. I would argue that they do not involve, as she suggests, coercion; the fact that many of her sentences are easily admissible, I argue is evidence that these sentences have these interpretations to begin with. I

further propose that the interpretations that Carlson would like to set aside tell us something about these predicates and that these readings are crucial in establishing the meaning of these predicate types.

5.3. Structurally-based definitions of predicate classes

5.3.1. [±ADD TO, ±SPECIFIED QUANTITY OF A, ±TERMINATIVE]: Verkuyl 1993

Verkuyl's compositional system has been influential in the re-examination of the traditional classes introduced by Vendler (and the ones used by Carlson and Smith in the previous section). He argued that the event classes themselves are not primitive, but that the classification is based on primitive features of the event. Furthermore, he proposed that the classification is not as useful as an understanding of the binary features that generate the classes.[20] Verkuyl argued that the NP subject and object of a given sentence affect whether to consider a verb a member of one of Vendler's classes or another and thus suggests that the classification of predicate classes cannot be simply lexical, but must be structural as well, and he proposes a system that incorporates both. Verbs are assigned lexical features, while the features of NPs, VPs and S are composed structurally.

Verkuyl's system assigns binary features to heads, phrases and sentences. The following is an inventory of features in his system:

(47) a. [±ADD TO]

b. [±SPECIFIED QUANTITY OF A (SQA)] (where A = a set of individuals in the domain of interpretation)

c. [±TERMINATIVE (T)]

The binary feature [±ADD TO] is assigned to the verb. This is the only lexical feature of the system as it is a property of the verb alone. [±ADD TO] refers to the dynamic semantic information that distinguishes non-stative verbs such as *eat*, *walk*, *drink*, *knit* [+ADD TO] from stative verbs such as *want*, *hate* [-ADD TO]:

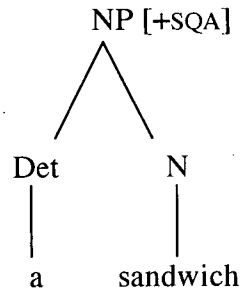
[20] Note that Verkuyl's system could have been included in the previous section on feature-based systems, but since (contrary to what he claims) his system is also structural, I have included it here.

(48) a. V [+ADD TO] — eat

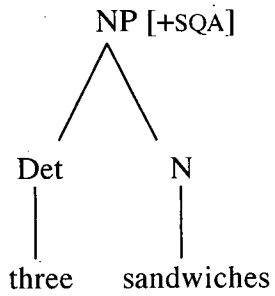
b. V [-ADD TO] — want

The binary feature [±SQA] is attributed to the NP subject and the NP object of the clause and is a result of the combination of a determiner and the head N of the NP. A [+SQA] NP pertains to a specified quantity of things or mass denoted by its head noun whereas [-SQA] pertains to an unspecified quantity:

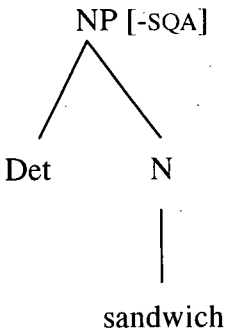
(49) a. *a sandwich*



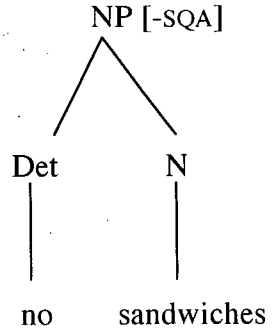
b. *three sandwiches*



c. *sandwiches*



d. *no sandwiches*



Finally, a binary feature [±T] is attributed to the VP and the sentence itself. A terminative [+T] feature is assigned to *events* (*accomplishments*, in Vendler's terms), which Verkuyl calls "temporal entities that can be counted and quantified over" (1993:19). A [-T] feature indicates durativity, and is assigned to processes and states (in the sense of Bach 1986). Durativity refers to "something going on in time unboundedly, or about something not going on in time" (19-20). As with [±SQA], this feature is structurally determined.

To calculate the aspectual value of a sentence, first the value of the VP is calculated based on the composition of the verb and its object (a); then the value of S is calculated based on the composition of the subject and the VP (b):

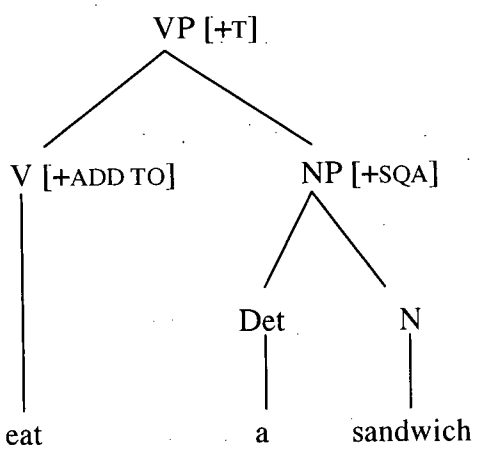
(50) *Calculating aspect* (Verkuyl 1993)

a. V[±ADD TO] + object [±SQA] = [$\pm T_{VP}$]

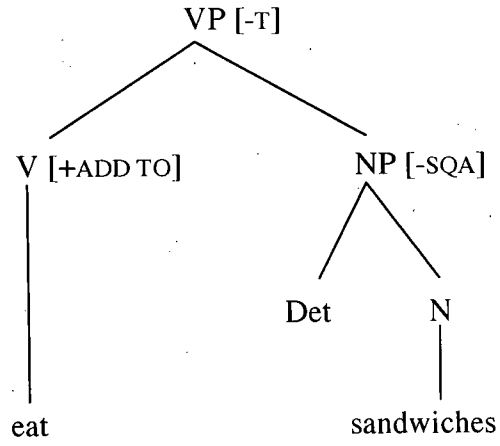
b. subject[±SQA] + [$\pm T_{VP}$] = [±T]

To calculate the aspectual value of VP, the lexical information encoded in V is combined with the structural information of the NP object (if present).[21] This is illustrated for [+ADD TO] verbs in (a-b) and [-ADD TO] verbs in (c-d):

(51) a. *ate a sandwich*

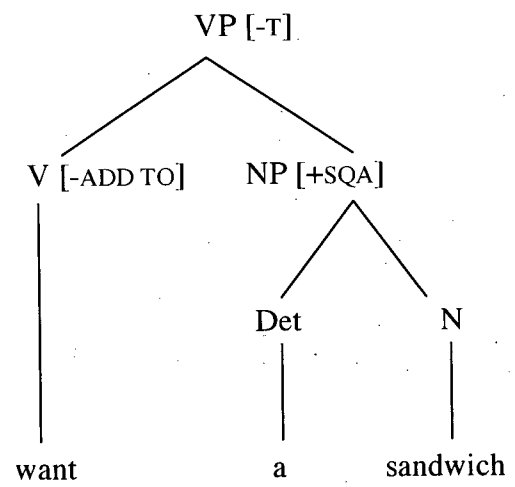


b. *ate sandwiches*

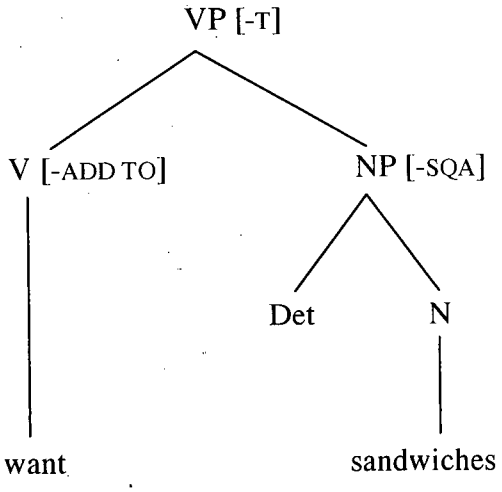


[21] See Verkuyl (1993) for details of the assignment of [±SQA] features.

c. *want a sandwich*



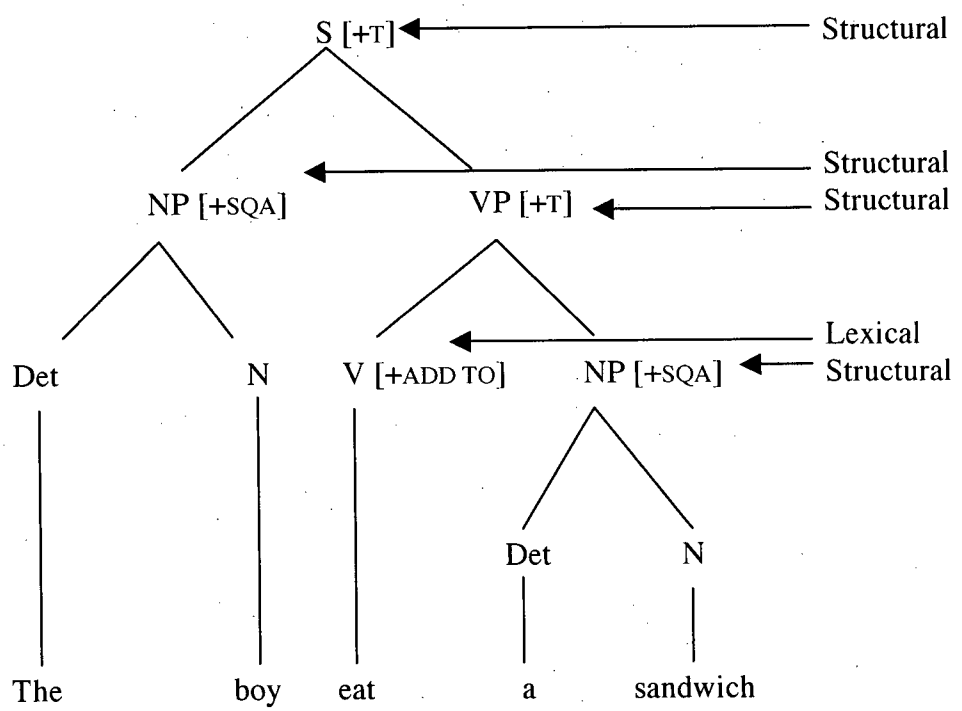
d. *want sandwiches*



Any [-] feature in the calculation results in the feature [-T]; thus, only if **all** the features are positive can you get a terminative feature [+T]. Regardless of the value of the NP object in (c-d) above, the VP is [-T] since the V is [-ADD TO]. This is what Verkuyl refers to as the *plus-principle.*

To calculate the aspectual value of S, the structural information encoded in the subject NP is composed with the structural information encoded in the VP:

(52) *The boy ate a sandwich*



The predictions of the system are summarized in the chart below:

(53) *Verkuyl's feature system*

	NP feature [± SQA]	V feature [±ADD TO]	VP/S feature [±T]
State	±	-	-
Process	-	+	-
Event	+	+	+

Verkuyl suggests that these three features result in an ontological tripartition of state, process and event, which parallel Bach's (1986) classification of predicates into these three classes. Example sentences of each type are given below:

(54) *States* (durative)

a.	Judith [+SQA]	wanted [-ADD TO]	a sandwich [+SQA]	=durative [-T]
b.	Children [-SQA]	wanted [-ADD TO]	a sandwich [+SQA]	=durative [-T]
c.	Judith [+SQA]	wanted [-ADD TO]	sandwiches [-SQA]	=durative [-T]
d.	Children [+SQA]	wanted [-ADD TO]	sandwiches [-SQA]	=durative [-T]

(55) *Processes* (durative)

a.	Judith [+SQA]	ate [+ADD TO]	sandwiches [-SQA]	=durative [-T]
b.	Children [-SQA]	ate [+ADD TO]	sandwiches [-SQA]	=durative [-T]
c.	Children [-SQA]	ate [+ADD TO]	a sandwich [+SQA]	=durative [-T]

(56) *Events* (terminative)

a.	Judith [+SQA]	ate [+ADD TO]	a sandwich [+SQA]	=terminative [+T]

The system requires an additional mechanism to account for intransitive process predicates such as the following:

(57) a. John walked
b. Mary sang
c. Bill rehearsed

These are problematic for the system presented above in that they are predicted to be [+T] since they combine [+SQA] subject NPs with [+ADD TO] verbs. However, these predicates are processes [-T], not events. In earlier work, Verkuyl (1972) suggested that unergative predicates such as these were two-place predicates with [-SQA] complements, which would make the correct [-T] predication. In more recent work, Verkuyl (1993) proposes that some verb stems, like *walk*, are neutral with respect to [±ADD TO] and thus can choose whether to be inserted in a transitive frame [+ADD TO] and an intransitive frame [-ADD TO].[22]

For Verkuyl, activities that take object complements are a central problem in that the system predicts that a verb with the feature [+ADD TO] with an object with the feature [+SQA] will be terminative, rather than durative. This is shown below:

(58)	John/The man [+SQA]	pushed/stroked [+ADD TO]	a cart/three carts [+SQA]	= [+T]

Verkuyl suggests that these types of verbs are different from typical [+add to] verbs; they are in some sense 'incomplete' and that these actually mean 'give one or more pushes to' or 'to exert force to', which would result in terminative aspect, as predicted.

5.3.2. STATE, PROCESS, TRANSITION: Pustejovsky (1991, 1995)

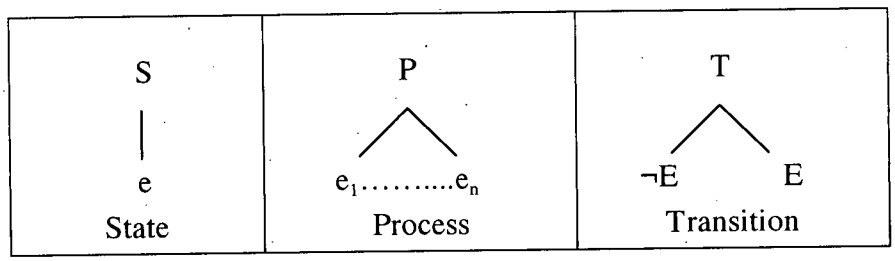
Following the proposal that verbs have event variables in their logical semantics (Davidson 1967) and the proposal that [e] is an argument of verbs (Higginbotham 1985, Kratzer 1995), some research has attempted to address the relation between verb meaning and the syntactic realization of its arguments by representing events in the lexicon/syntax mapping. Tenny

[22] It seems to be that this amounts to saying that verbs like *walk* can be states since states have a [-ADD TO] specification; it is not clear to me that this is a desired result.

(1994) (among others) suggests that the verb lexically determines a set of event roles that determine how and where the arguments of the verb are mapped into the syntax. Pustejovsky (1991, 1995) proposes a representation of the event in the lexical semantics of the verb.

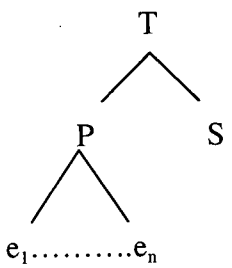
Pustejovsky proposes that events have internal structure that can be decomposed into smaller parts. He defines three event types: state (a single event which is evaluated relative to no other event), process (a sequence of events identifying the same semantic expression) and transition (an event identifying a semantic expression which is evaluated relative to its opposition). Their structures are given below:

(59) *Pustejovsky's event structures*



Crucially, unlike any previous analysis, Pustejovsky assumes that events can have subeventual structures. An accomplishment, for example, can be represented as a transition consisting of a process as a first subevent with a final resulting state, as shown below:[23]

(60) *Mary built a house*



The advantage of this representation is that it allows us to refer to the sub-structure of events in order to account for the behaviour of adverbial modification and its scope effects.

[23] Although this structure does not appear to contain an opposition *per se*, at the level of Lexical Conceptual Structure, the final state that results is negated at the process subevent; that is, the resulting state of the house being built is negated at the process level since the house is not yet built.

An adverb can yield different readings in combination with transition predicates. Pustejovsky argues that these different readings can be attributed to scope effects and that his representation of transition predicates can derive the two readings. Consider the manner and stative interpretations of the sentence below:

(61) Mary rudely departed.

a. = Mary departed in a rude manner (manner interpretation).

b. = It was rude of Mary to depart (stative interpretation).

The sub-event structural theory allows us to distinguish the two readings with respect to scope: the manner reading in (a) is derived by modifying the process sub-event whereas the stative reading in (b) is derived by modifying the entire transition itself.

5.3.3. Advantages and disadvantages

An advantage of both Verkuyl and Pustejovsky's approaches is that they both attempt to minimize the components of the system that derives the Vendler classification. Verkuyl's system aims to improve earlier classifications by accounting for the effect of arguments on the aspectual nature of a given sentence. This approach is advantageous in accounting for a large range of data (but see the discussion on transitive activities above) and focusing on primitive features. However, Verkuyl's system cannot account for the Sḵwx̱wú7mesh data.

In Verkuyl's system, the NP and its determiner are relevant in determining the aspectual value of the VP as well as the aspectual value of the sentence. In particular, bare plurals are assigned a [-SQA] which when combined with a [+ADD TO] verb will result in a [-T] feature of the VP or S. Bare plurals can have generic interpretations which have been claimed to be absent from Sḵwx̱wú7mesh (Gillon in prep; see also Matthewson 1996 on St'át'imcets). Determiners are obligatory in Sḵwx̱wú7mesh (Gillon in prep) and most likely Salish in general (Matthewson 1996 on determiners in St'át'imcets and other Salish languages). When asked to translate an English sentence containing a bare plural 'John saw eagles yesterday', in some cases, speakers will offer a sentence that is translated with a quantified DP. This is illustrated below:

(62) John na kw'ach-nexw-as kwi kex sp'akw'us kwi chel'aklh
John RL look.at-TR(LC)-3 DET many eagle DET yesterday
'John saw a lot of eagles yesterday.'

Gillon (p.c.) suggests that it may be the case that all DPs in Skwxwú7mesh are [+SQA]. DPs composed of the determiner *kwi* (which are the closest to bare nouns) appear to be [+SQA]. For example, *kwi seplin* [DET bread] is translated as 'a bread'. If it is the case that all DPs in Skwxwú7mesh are [+SQA], then it cannot be the status of a DP that determines to which class a predicate belongs. The only feature left to distinguish among classes in Verkuyl's system is the [± ADD TO] feature, which would predict only the following two possible sentence types:

(63) a. [+SQA] + [+ADD TO] + [+SQA] = [+T]
b. [+SQA] + [-ADD TO] + [+SQA] = [-T]

This incorrectly predicts two classes of predicates: a class of *states* and a class made up of *accomplishments* and *achievements*, leaving no class of *processes*:

(64) a. [+SQA] + [+ADD TO] + [+SQA] = [+T] ACHIEVEMENTS, ACCOMPLISHMENTS
b. [+SQA] + [-ADD TO] + [+SQA] = [-T] STATES

This is not a desired result since (i) there is evidence for a class of process-like predicates in Skwxwú7mesh (namely, activity predicates that test as durative, not terminative):

(65) a. na t'ich-im lha Mary welh haw k-as i huy
RL swim-INTR DET Mary CONJ NEG IRR-3CNJ PART finish
'Mary swam but she didn't finish swimming.'

(ii) accomplishments and achievements do not behave as though they are members of the same class of predicates in Skwxwú7mesh. Among other things, accomplishments are easily compatible with CV reduplication, while achievements are not always:[24]

[24] This is not the full picture. See Chapter Five for detailed discussion.

(66) a. na p'a-p'ayak̲-ant-as ta snexwilh-s
RL REDUP-fix-TR-3ERG DET canoe-3POSS
'He's in the process of fixing his canoe.' ACCOMPLISHMENT

b. *chen x̲e-x̲ewtl'-an ta x̲el'ten
1S.SG REDUP-break-TR DET pencil
attempted: 'I am breaking the pencil.' ACHIEVEMENT

Thus, using Verkuyl's system to try to account for the aspectual classification of Sk̲wx̲wú7mesh predicates leads us along the wrong path. Not only would the application of this system for Sk̲wx̲wú7mesh rely on a feature that seems to be irrelevant for the language as a whole [+SQA], but it would not derive the correct classification of predicates that are observed. This thesis will show that there is evidence for more than two classes of predicates in Sk̲wx̲wú7mesh which result not from the feature specifications of DPs, but from a more articulated classification of predicates, which cannot be derived by a binary feature. To preserve the Verkuyl system for Sk̲wx̲wú7mesh, other factors that would derive this classification would have to be introduced, which again, is not a desired result.

An advantage of Pustejovsky's system is that it is constructed in such a way that it can derive a number of possible predicates. In earlier work on Sk̲wx̲wú7mesh, I adopted a Pustejovsky-type system to attempt to account for the Sk̲wx̲wú7mesh facts (Bar-el 1998, 2003). However, it was not possible to map the Sk̲wx̲wú7mesh data directly to the representations suggested in the event structure approach, but instead, this system needed to be adapted to account for the facts observed in Sk̲wx̲wú7mesh. Although my analysis here has changed, the facts remain the same; thus I do not think Pustejovsky's approach is the right one for Sk̲wx̲wú7mesh.

5.4. Operator-based definitions of predicate classes

To conclude this overview of the different types of aspectual classifications, I end with a presentation of Dowty's (1979) aspect calculus and a brief discussion of Rothstein's extension of his sytem. It is these classifications on which I base my proposals for Sk̲wx̲wú7mesh in the following chapters. Many of the diagnostics that Dowty proposes to distinguish among Vendler's four verb classes are not applicable to Sk̲wx̲wú7mesh, and possibly Salish in general, Dowty and Rothstein do provide an account of the meaning of the

predicate classes that are observed in English. Given that the focus here is on the initial and final points of predicates, the system presented in Dowty provides a straightforward way to derive these facts.

5.4.1. BECOME, DO, CAUSE: Dowty (1979)

Drawing on Vendler's verb classes, Dowty (1979) observes a number of diagnostics, in addition to those proposed by Vendler, that distinguish among four classes of verb phrases. These diagnostics are summarized in the chart below. For expository purposes, I have divided them into two sets (Dowty's notations are as follows: ✓ / × = does or does not exhibit the features of that test, "OK" = grammatical, semantically normal, "bad" = ungrammatical, semantically anomalous, "N/A" = test does not apply to verbs of this class):

(67) *Criteria that distinguishes among the four classes (adapted from Dowty 1979:60)*

Criterion	States	Act.	Acc.	Ach.
1. meets non-stative tests (see below)	×	✓	✓	?[25]
2. has habitual interpretation in simple present	×	✓	✓	✓
3. ϕ for an hour entails ϕ at all times in the hour	✓	✓	×	N/A
4. x is ϕ-ing entails x has ϕ-ed	NA	✓	×	N/A
5. ambiguity with almost	×	×	✓	×
6. x ϕ-ed in an hour entails that x was ϕ-ing during that hour	N/A	N/A	✓	×
7. ϕ for an hour; spend an hour ϕ-ing	OK	OK	OK	Bad
8. ϕ in an hour; take an hour to ϕ	bad	bad	OK	OK
9. complement of stop	OK	OK	OK	Bad
10. complement of finish	bad	bad	OK	Bad
11. occurs with studiously, attentively, carefully..	bad	OK	OK	Bad

The non-stative tests that Dowty refers to in the above chart are as follows:[26]

[25] Dowty suggests that achievements are like statives according to some stativity tests, but not others: **John persuaded Bill to notice the stranger in the room* vs. *John is noticing a stranger in the room.*

[26] While Dowty suggests that these diagnostics test for agentivity, the fact is they seem to test for volition, or possibly control (or lack of).

(68) a. *Only non-statives occur in the progressive*

i. *John is knowing the answer. (*state)

ii. John is running. (activity)

iii. John is building a house. (accomplishment)

b. *Only non-statives occur as complements of* force *and* persuade

i. *John forced Harry to know the answer. (*state)

ii. John persuaded Harry to run. (activity)

iii. John forced Harry to build a house. (accomplishment)

c. *Only non-statives occur as imperatives*

i. *Know the answer! (*state)

ii. Run! (activity)

iii. Build a house! (accomplishment)

d. *Only non-statives co-occur with deliberately, carefully*

i. *John deliberately knew the answer. (*state)

ii. John ran carefully. (activity)

iii. John carefully built a house. (accomplishment)

e. *Only non-statives appear in psuedo-cleft constructions*

i. *What John did was know the answer. (*state)

ii. What John did was run. (activity)

iii. What John did was build a house. (accomplishment)

Dowty proposes that these classes are distinguished from one another in which operators are present in their Logical Structure. He uses McCawley's (1968) BECOME and CAUSE operators, as well as introducing a DO operator, and proposes that these operators are part of the basic meanings of verb phrases. The result is the aspect calculus shown below, with example sentences for each (α_1 and β_1 stand for arbitrary individual terms, π_n and ρ_m stand

for arbitrary stative (n-place) predicates, and ϕ and ψ are arbitrary formulas, either complex or atomic)

(69) *Simple statives* $\pi_n (\alpha_1, \ldots, \alpha_n)$
'John knows the answer.'

(70) *Simple activities* DO $(\alpha_1, [\pi_n (\alpha_1, \ldots, \alpha_n)])$
'John is walking.'[27]

(71) *Achievements*[28]

a. *Simple achievements* BECOME $[\pi_n (\alpha_1, \ldots, \alpha_n)]$
'John discovered the solution.'

b. *Inchoation of activity* BECOME [DO $(\alpha_1, [\pi_n (\alpha_1, \ldots, \alpha_n)])$]
'John began to walk.'

c. *Inchoation of accomplishment* BECOME ϕ
(where ϕ can have the structure of any of the accomplishments below)
' John began to build a house'

(72) *Accomplishments*

a. *Non-agentive accomplishments* [[BECOME ϕ] CAUSE [BECOME ψ]]
(where ϕ and ψ are stative sentences)
' The door's opening causes the lamp to fall down.'

b. *(Non-intentional) agentive accomplishments*
[[DO $(\alpha_1, [\pi_n (\alpha_1, \ldots, \alpha_n)])$] CAUSE [BECOME $[\rho_m (\beta_1, \ldots, \beta_m)]]$]
'John broke the window.'

c. *Agentive accomplishments with secondary agent*
[[DO $(\alpha_1, [\pi_n (\alpha_1, \ldots, \alpha_n)])$] CAUSE [DO $(\beta_1, [\rho_m (\beta_1, \ldots, \beta_m)])$]]
'John forced Bill to speak/build a house.'

---

[27] It should be noted that the example that Dowty provides is a present progressive, which cannot really be described as "simple".

[28] Dowty points out that the inchoation of an activity or accomplishment does not lexicalize as s single verb in English, or it does so marginally; he suggests that *germinate* might be an example of the inchoation of an activity.

d. *Intentional agentive accomplishments (?)*[29]

[DO (α_1, DO (α_1, π_n (α_1, …,α_n)) CAUSE ϕ]

(where ϕ may be any non-stative sentence)

'John murdered Bill.'

(Dowty 1979: 123-125)

Dowty points out that there is a possible structure that his system allows but does not fit into Vendler's categories; this is shown below:

(73) DO (α_1, BECOME [π_n (α_1, …, α_n)])

He suggests that "these would be basic actions, events under the unmediated control of an agent that are not brought about by any subsidiary activity. Plausible candidates would be *John opened his eyes* and *John raised his arm* – no conscious causal activity is apparent" (p. 125)

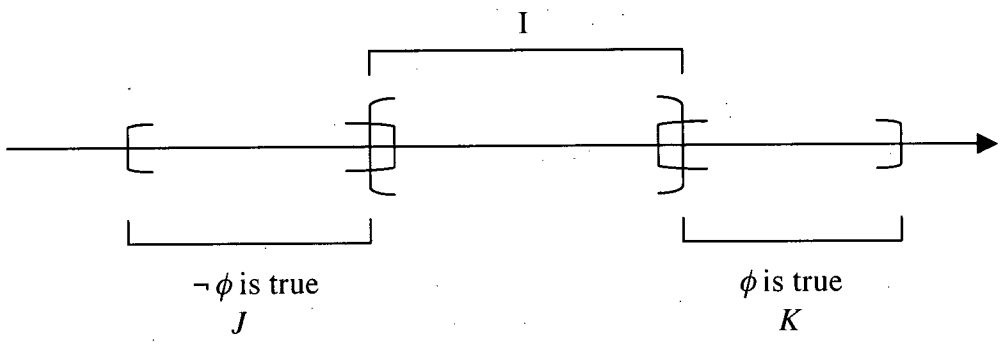
Using Bennett and Partee's (1978) notion of *intervals*, but introducing the notion of initial boundary interval and final boundary interval, Dowty defines the truth conditions for [BECOME ϕ] in the following way:

[BECOME ϕ] is true at *I* iff there is an interval *J* containing the initial bound of *I* such that $\neg\phi$ is true at *J* and there is an interval *K* containing the final bound of *I* such that ϕ is true at *K*

(Dowty 1979: 140)

Thus, [BECOME ϕ] will be true at the interval *I* in the following situation:

(74)



[29] The question mark here is given in Dowty (1979).

Dowty notes that the truth conditions of BECOME as stated above do not put any requirements on the truth value of ϕ at I, or any times within I. This predicts [BECOME ϕ] to be true in counterintuitive situations, where, for example, there is a large interval where $\neg\phi$ is true followed by a large interval where ϕ is true. The example he gives is a situation where the door is closed for a long period and then it suddenly comes to be open and stays open for some time. It would be strange in this case to say the door opens is true of any interval in that whole period as long as the interval contains the first moment that the door opened. The preference would be to limit the truth of the door opened to the smallest interval over which the change of state has taken place. Dowty suggests that pragmatics will rule these situations out and force the relevant reading; he argues that adding another clause to the truth conditions can be too restrictive, raising its own problems.

Dowty's notion of DO dates back to Ross (1972) who proposed that "every verb of action in embedded in the object complement of a two-place predicate whose phonological realization in English is *do*" (p. 70). Dowty notes that "DO does not necessarily connote action in the usual sense" (p. 117) as this would not explain examples such as the following where there are no actions:

(75) a. John is being quiet
b. John is ignoring Mary

These sentences involve activities that have been derived from states by the addition of DO; note, that DO seems to add control, rather than simply agentivity, to the sentence.

Furthermore, the notion of intentionality or volition is a close approximation to the meaning of DO. In the following examples, Dowty suggests that there is no necessary intention:

(76) a. John is being obnoxious
b. John is being a fool

However, he suggests that some property under the control of John qualifies him as obnoxious, for example.

Thus, Dowty concludes that DO should satisfy the following condition:

(77) $[DO(\alpha, \phi) \leftrightarrow \phi \wedge$ u.t.u.c.o.a. $(\phi)]$

= "is under the unmediated control of the agent (individual denoted by α)"

Many of the diagnostics that Dowty uses to generate the Vendler classes cannot be used to distinguish among predicate classes in Sḵwx̱wú7mesh. For example, *tl'iyi7* 'stop' and *huy* 'finish' do not distinguish between activities and accomplishments in Sḵwx̱wú7mesh. Furthermore, there does not seem to be a contrast between *in X time* and *for X time*. A number of the tests are language-specific; for example, there is no simple present in Sḵwx̱wú7mesh and thus testing for whether it induces a habitual reading is not relevant. Finally, some of the entailment tests are not easily tested in fieldwork settings.[30]

Mattina (1996) takes another approach to classifying the aspectual classes of Okanagan (an Interior Salish language), namely a morphological one. She argues for an inventory of aspectual classes based on morphological evidence where certain "bases" are compatible with certain affixes. I follow Mattina's intuition that we must rely on language-internal evidence for classification; however, I extend this idea beyond morphology and into semantics by relying on not only on speakers' grammaticality judgements of given sentences, but on the meanings they give to sentences and the various contexts that they are permitted in. I argue that predicate classes are distinguished based on the presence/absence of initial and final points; the diagnostics I use precisely pick out these points and thus relate the data directly to the representations.

5.4.2. BECOME, DO: Rothstein (2004)

Based on Dowty (1979), Rothstein proposes the following verb class templates in a neo-Davidsonian theory of verb representations where verbs are predicates of events (the relevant thematic roles are set aside here). *States* are bare event predicates, *activities* are bare event predicates under the scope of a DO operator and *achievements* are bare event predicates under the scope of a BECOME operator. *Accomplishments* are more complex in that they are

[30] See Matthewson (2004) and Kiyota (2005) for claims that standard tests do not apply in St'át'imcets or Sənčáθən, respectively.

created by summing an activity and a culmination point (accomplishments are discussed in further detail below):

(78) a. States $\lambda e.P(e)$

b. Activities $\lambda e.(DO(P))(e)$

c. Achievements $\lambda e.(BECOME(P))(e)$

d. Accomplishments $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (DO(P))(e_1) \wedge (BECOME(P))(e_2)]$

In each of the templates, P is a variable over the idiosyncratic content of particular lexical items. Rothstein uses these templates to account for a variety of behaviours of predicate classes in different environments.

Culminations: after suggesting three alternatives to the question of what are culminations, Rothstein finally settles on a fourth. She argues that the culmination of an accomplishment is the final minimal event in an incremental process. Thus, the accomplishment template is as follows ($_{<X>}$ and $_{<Y>}$ give the content of the activity and BECOME events):

(79) $\lambda y \lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2)$
$\wedge$ ACTIVITY $_{<X>}$ $(e_1) \wedge Ag(e_1)=x \wedge Th(e_1)=y$
$\wedge$ BECOME $_{<Y>}$ $(e_2) \wedge Arg(e_2)=Th(e_1)$
$\wedge$ INCR$(e_1, e_2, C(e_2))]$

Relevant to the analysis in this thesis is Rothstein's shift operation which she proposes for progressive accomplishments. She shows that although achievements are predicted to be incompatible with the progressive (since they are near instantaneous events), they are sometimes compatible:

(80) a. The old man is dying.

b. The plane is landing.

(Rothstein 2004: 36; ex. 2d-e)

Rothstein argues that previous analyses that attempt to account for progressive achievements (Mittwoch 1991, Verkuyl 1989) incorrectly predict that accomplishment and achievement verbs should show the same behaviour in the progressive. Based on a number of diagnostics, Rothstein shows that this is not the case: (i) achievements that are felicitous in the progressive are limited (some are never accepted), as shown below:

(81) a. # Bill is noticing that Mary has dyed her hair. (p. 42)

b. # Mary is spotting her friend at the party. (p. 42)

(ii) progressive achievements have a "slow-motion" reading where accomplishments do not; (iii) a temporal modifier (in futurate progressive) can modify the activity part of an accomplishment, but never the telic point; with achievements, this is the most natural reading. This is shown below:

(82) a. We are eating dinner in half an hour. ACCOMPLISHMENT (p. 43)

b. The plane is landing in half an hour. ACHIEVEMENT (p. 43)

In (a) the modifier *in half an hour* suggests that either the entire event of eating dinner will occur in that time, or that the eating (activity portion) will begin in half an hour. What it cannot mean is that dinner will be over in half an hour. This contrasts with the achievement in (b) where the most natural meaning is that the culmination (the landing) will take place after half an hour.

(iv) no "stops along the way" with progressive achievements: they cannot be part of a bigger eventuality. This following example is an illustration:

(83) a. *Accomplishment*
Mary is running to the Netherlands. In fact she is running to Amsterdam.

b. *Achievement*
Mary is arriving in the Netherlands. In fact she is arriving in Amsterdam.
(p. 43)

In the accomplishment sentence in (a), Mary first arrives at the Dutch border, then she runs to Amsterdam (the running to the Netherlands is a stage of the running to Amsterdam). However, in the achievement sentence in (b), the arrival at the Dutch border is identical to arrival in Amsterdam (the first cannot be seen as a stage of the second).

(v) achievements cannot be modified by "halfway through". This is shown below:[31]

(84) a. She is halfway through walking to the station. ACCOMPLISHMENT
b. #She is halfway through arriving at the station. ACHIEVEMENT

(p. 44)

Finally, (vi) only progressive achievements can be paraphrased as "about to"; take the following sentences as an example:

(85) a. Jane is building a house. ACCOMPLISHMENT
b. The vase is falling. ACHIEVEMENT

(p. 44)

The accomplishment in (a) cannot be paraphrased as 'Jane is about to build a house', although the achievement in (b) can be paraphrased as 'The vase is about to fall'.

Given these data, Rothstein argues that "while the progressive does not treat the achievement as a special kind of lexical accomplishment verb, it does trigger a type-shifting operation which results in an accomplishment being derived from the achievement" (p. 37). The proposed shift rule is given below:

(86) $\text{SHIFT}(\text{VP}_{\text{punctual}})$: $\lambda e.(\text{BECOME})(e) \rightarrow$
$\lambda e.\exists e_1 \exists e_2[e =^{s} (e_1 \sqcup e_2) \wedge (\text{DO}(\alpha))(e_1) \wedge (\text{BECOME}(P))(e_2) \wedge \text{Cul}(e)=e_2]$

The achievement VP is thus shifted into the structure of an accomplishment VP, the culmination of which is given by the achievement VP. An example is given below:

[31] H. Davis (p.c.) states that 'the plane is landing' can be modified by halfway through. I do not share this judgement and unfortunately have not tested this with other English speakers. I thus set it aside here.

(87) SHIFT (λe.(ARRIVE AT THE STATION(e) $\wedge$ Th(e)=x

= λe.$\exists e_1 \exists e_2$[e=^{s}($e_1 \sqcup e_2$) $\wedge$ (DO(α))(e_1) $\wedge$ ARRIVE AT THE STATION(e_2)
$\wedge$ Th (e_2)=x $\wedge$ (Cul(e)=e_2]

The denotation of the shifted VP is a set of derived accomplishment events which are sums of an activity and a culmination, where the culmination is in the denotation of arrive at the station. The SHIFT operation thus preserves the meaning of the original lexical predicate intact, and uses it as a piece in the construction of a new derived predicate meaning. This is a formal analysis of Smith's (1991) suggestion that progressive achievements focus on "detachable" preliminary stages of the achievement (see also Kamp and Reyle 1993).

5.4.3. Implementation: theoretical assumptions

The proposed representations of Sḵwx̱wú7mesh aspectual classes rely heavily on Rothstein's (and thus, Dowty's, as well); however, as the inventory of aspectual classes in Sḵwx̱wú7mesh is not identical to that of English, the templates need to be adapted in some way. I follow Rothstein in using a system that provides the meanings of various types of predicates in Sḵwx̱wú7mesh using the operators DO and BECOME. I propose that predicates can be distinguished from each other based on the presence of intrinsic initial and final points. In the system used here, initial and final points are represented as BECOME events in the predicate representations.

With respect to DO, this thesis will not present a more detailed discussion than that given by Dowty. I will assume Dowty's condition on DO, namely, that the event in question is under the unmediated control of the agent. This is an appropriate way to think about Salish predicates in that the two classes that invoke a DO operator are the two classes of predicates that have overt (in)transitivizers that also denote the control of the agent. There is one problem with this assumption as well as one prediction that is yet to be understood.

Beginning with the prediction, it is crucial here that in Sḵwx̱wú7mesh (in)transitivizers encode not only control over the event, but limited control as well as non-control.[32] This would suggest that in cases where an accomplishment predicate, for example, is marked by a limited control or non-control transitivizer, we might predict that DO would

[32] The Sḵwx̱wú7mesh transitivity system is quite complex; a complete discussion is beyond the scope of this thesis. See Kuipers (1967) and Jacobs (1999) for discussion.

not be present in the denotation of the predicate. This may very well be the case, and preliminary data do suggest minimally that there is a difference in culmination requirements for control and limited control marked accomplishments. The problem with the correlation between DO and the (in)transitivizers is that there are cases where Sḵwx̱wú7mesh achievement predicates seem to be marked by an intransitivizer:

(88) chen mekw'-em kwetsi smant
1S.SG find-INTR DEM rock
'I found a rock.'

Achievements make up the class of predicates that denote BECOME events only. Thus, under this analysis of DO, further explanation is required to explain why there are control intransitivizers in cases where there is no DO in the denotation of the predicate.

6. Grammatical aspect

In this section, I outline the assumptions I make with respect to the perfective/imperfective distinction, beginning with the perfective.

Perfective sentences view the situation or event as a whole, while imperfective sentences look inside of a situation or event (see Comrie 1976, among others; the behaviour of the Sḵwx̱wú7mesh perfective is discussed in greater detail in Chapter Four). The contrast can be seen in the following data:

(89) a. John baked a cake. PERFECTIVE
b. John is baking a cake. IMPERFECTIVE

The perfective sentence in (a) entails that John did some baking and that baking led to a cake being baked. The imperfective sentence in (b) has no such entailment; in fact, it may be the case that the cake never gets baked (e.g., John could drop the batter on the floor).

Accounting for the contrast between the perfective and imperfective, Kratzer (1998) proposes that aspect heads denote operators that map properties of events into properties of times. They can then impose conditions on the relation between event time and reference

time ("topic time", in Klein's (1994) terms). Following Kratzer, I assume the semantics for the two grammatical aspectual oppositions given below, beginning with the perfective:

Perfective

(90) a. event time included in reference time [REFERENCE TIME [EVENT TIME]

b. $\lambda Q \lambda t \exists e\ [Q(e) \wedge \tau(e) \subseteq t]$

c. A property of events *Q* is mapped into a property of times and it is true of a time *t* (the reference time) just in case *t* includes the running time (τ; the event time) of a Q-event.

The representation of the aspectual classes given earlier replace *Q* in Kratzer's definition of the perfective. I illustrate with the following French sentence (Smith 1997 claims that the passé compose in French is a perfective) :

(91)	L'	été	passé	ils	ont	construit	une	cabine
	DET.M	summer	PAST	3PL.M	have	built	INDEF.F	cabin

'Last summer, they built a cabin.'

In this perfective sentence, the reference time is *l'été passé* 'last summer, and the event time is the running time of the event *ils construire une cabine* 'they build a cabin'. That the event time must be included inside the reference time is emphasized in examples such as the following where it is not possible for the event to be still on-going:

(92)	# L'	été	passé	ils	ont	construit	une	cabine;
	DET	summer	past	3PL.M	have	built	DET	cabin
		peut-être	qu'	ils	la	contruisent	encore	
		maybe	that	3PL.M	3SG.F	build	still	

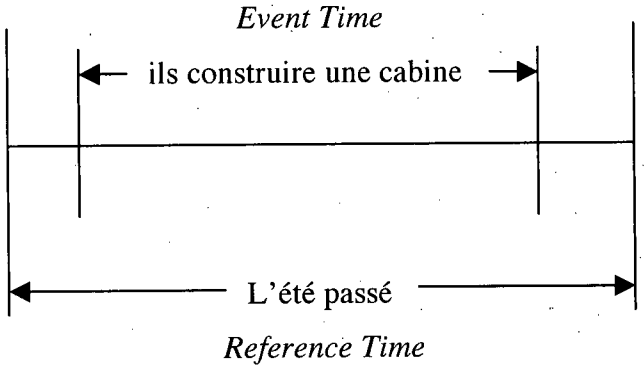
'Last summer they built(PC) a cabin; perhaps they are still building(PRESENT) it.'

(Smith 1997: 194; ex. (2a))

The perfective is schematically illustrated below:

(93) Perfective: event time included in reference time

L'été passé ils ont construit une cabine



The following are Kratzer's semantics for the imperfective:

Imperfective

(94) a. reference time included in event time [EVENT TIME [REFERENCE TIME]]

b. $\lambda Q \lambda t \exists e\ [Q(e) \wedge t \subseteq \tau(e)]$

c. A property of events *Q* is mapped into a property of times and it is true of a time *t* just in case *t* is properly included in the running time (τ) of a Q-event.

The following French sentence containing the Imparfait is an illustration:

(95)

L'	été	passé	ils	construisaient	une	cabine
DET	summer	past	3PL.M	built	DET	cabin

'Last summer, they were building a cabin.'

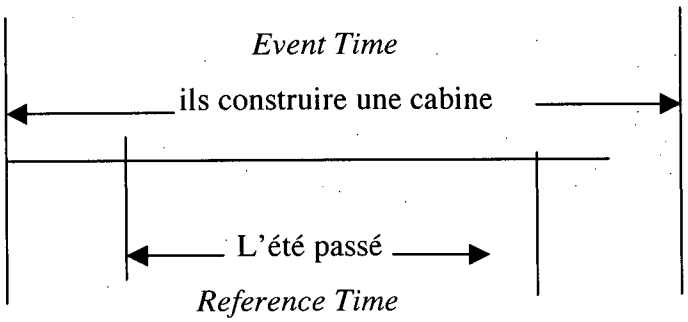
For this sentence, the event time is again the time during which they built a cabin, and the reference time is last summer. Since the sentence is in the imperfective, the beginning and end of the event are outside of the reference time; that is, the imperfective makes no reference to the beginning or end of the event, and it could be the case that they began building the cabin before last summer and did not finish by the end of the year; as the sentence below shows, they could still be building the cabin:

(96) # L' été passé ils construisaient une cabine;
DET summer past 3PL.M built DET cabin
peut-être qu' ils la contruisent encore
maybe that 3PL.M 3SG.F build still
'Last summer they were building(IMPF) a cabin; perhaps they are still building(PRESENT) it.'

(Smith 1997: 198; ex. (11a))

The imperfective is illustrated schematically below:

(97) Imperfective: reference time included in event time
L'été passé ils construisaient une cabine



This analysis of the perfective and imperfective, along with the proposed representations for predicates account for the readings of Sḵwx̱wú7mesh perfective and imperfective sentences. This is discussed in details in Chapters Four and Five.

7. The study of aspect in Salish[33]

The Salish language family is made up of 23 languages that are or were spoken

> "in an area encompassing coastal British Columbia and Washington State (including parts of Vancouver Island, the Gulf Islands, and the San Juan Islands), the interior of British Columbia as far north as the southern Cariboo

[33] While Salish aspectual morphemes, their shape, phonology and morphology have been discussed in a number of works, including the grammars of a various Salish languages, I limit the discussion and references cited here to work that attempts to address the semantics of some of these aspectual morphemes, as well as the classification of predicates in terms of their aspectual properties.

region, most of the northern interior of Washington, Idaho, and into Montana, with a pocket on the Oregon Coast"

(Czaykowska-Higgins and Kinkade 1998:1)

The Salish languages fall into five groups. Two of these consist of a single language: Bella Coola and Tillimook. These languages are geographically isolated from the remaining Salish languages and are divergent from the other languages. The list below comprises the non-indigenous appellation most commonly used in the linguistics literature:[34]

(98) *Salish Language Family* (based on Czaykowska-Higgins and Kinkade 1998: 3)

I. Bella Coola
II. Central/Coast Salish
- Comox
- Pentlatch
- Sechelt
- **Sḵwx̱wú7mesh (Squamish)**
- Halkomelem
- Northern Straits
- Klallam
- Nooksack
- Lushootseed
- Twana

III. Tsamosan
- Quinault
- Lower Chehalis
- Upper Chehalis
- Cowlitz

IV. Tillimook
V. Interior Salish
- Lillooet
- Thompson
- Shuswap
- Colville-Okanagan
- Columbian
- Spokane-Kalispel-Flathead
- Coeur d'Alene

Aspect has been a topic of research in the Salish literature for some time. There has been much descriptive work, many discussions of which have been the focus of sections of

[34] See Czaykowska-Higgins and Kinkade (1998) and Poser (2003) for discussions on names of Salish languages.

grammars for various languages across the family. Czykowska-Higgins and Kinkade (1998) provide a brief overview of some central issues in the study of aspect in Salish and the related references. They address four main areas of research on aspect across Salish: (i) stative aspect (the stative marker), (ii) a distinction which they label imperfective/continuative/actual/habitual aspect on the one hand and perfective/non-continuative/nonactual aspect on the other, (iii) unrealized, repetitive, inchoative and (iv) the use of aspectual morphemes and their interactions with transitivity, control and mood.

More recently, there have been more works that have focused on the semantic properties of expressions of aspect across Salish. In particular, there has been some research that has focused on understanding of the meaning of events and the classification of aspectual classes in Salish languages.[35] The range of aspectual markers across the Salish language family is outlined in detail in Kinkade (1996) where he provides a reconstruction of aspectual markers in Salish. In particular, he examines the imperfective, stative, unrealized, inchoative, repetitive, affective, state (distinguished from stative) and mutative.

Mattina's (1996) thesis explores aspect in Okanagan (Southern Interior); her focus is on the role of aspect and category in the word formation processes in the language from a morphological perspective. Mattina uses a number of diagnostics that show the compatibility of certain affixes with certain types of "bases" to motivate an inventory of Okanagan predicate classes.

There have been a number of papers on the aspectual classification of predicates in St'át'imcets. Davis and Demirdache (1995) was the first attempt to analyze St'át'imcets lexical aspect adopting a Pustejovsky approach. Davis and Demirdache (2000) (building on the work of Davis 1997 and Demirdache 1997) argue that all roots in St'át'imcets (Interior Salish) are derived from unaccusative bases, but that these bases have underlying causative lexical semantics. Transitive and intransitive predicates are derived via suffixation of (in)transitivizers and these suffixes also serve to foreground the relevant sub-events of the causative structure (à la Pustejovsky). Burton and Davis (1996) explore states in St'át'imcets (Northern Interior). Their work is the first to formalize the relationship between stative aspect

[35] I refer the reader to Czykowska-Higgins and Kinkade (1998) and van Eijk's (2001) Salish bibliography for overviews and references of research in this area.

in the verbal domain and possessive aspect in the nominal domain. They also draw on the Pustejovky model.

Bar-el (1998) was the first look at aspectual classes in Sḵwx̱wú7mesh. In this work, I also proposed an inventory of Sḵwx̱wú7mesh aspectual classes using a Pustejovsky model. In particular, I showed that the effect of adverbial quantification provides a clue in this regard.

More recently, Kinkade and Kiyota (2004) examine different morphemes in Salish languages which they argue indicate beginning, middle and end of change in states across the language family. Kiyota (2005) examines the aspectual classification of verbs in Sənčáθən (Northern Straits, Central). He argues that most English based classification diagnostics do not apply to Saanich and argues for cross-linguistic variation in the aspectual classification of predicates . Kiyota uses the following three language-internal diagnostics:

(99) a. interpretation of tenseless forms
b. interpretation with the particle $k^{w}l$
c. stative prefix s-

Based on the results of these tests, Kiyota argues for the following three primitive aspectual verbal classes in Sənčáθən:

(100) a. States
b. Activities
c. Achievements

Building on data first introduced in J. Davis (1978), Watanabe (2003) discusses the contrast of control marked transitives and non-control marked transitives with respect to culmination in Comox. He suggests that "encoding completion" may be a more important function of the non-control transitivizer than "control" since non-control marked transitives cannot be cancelled although control marked transitives can.

Originally stemming from data discussed in Davis and Matthewson (2001), Matthewson (2004) take a close look at the nature of accomplishments in St'át'imcets and

argues that unlike in English where accomplishments have a culmination entailment, in St'át'imcets, accomplishments have a culmination implicature. Bar-el, Davis and Matthewson (2004) extended this analysis to account for data from Sḵwx̱wú7mesh as well.

I build on this emerging body of literature on aspect in Salish in providing a semantic analysis of aspectual classes in Sḵwx̱wú7mesh based on a larger number of diagnostics than previously proposed for Sḵwx̱wú7mesh. Bar-el (2004a) was the first attempt at an account that takes into consideration the initial point of Sḵwx̱wú7mesh predicates and the present study extends this analysis even further. It is my hope that the diagnostics used here will continue to be used for other Salish languages, which will result in an even larger inventory of data that is easily comparable.

8. Research methods

The Sḵwx̱wú7mesh data on which this thesis is based stem from original fieldwork conducted with eight Sḵwx̱wú7mesh elders. All the elders spoke Sḵwx̱wú7mesh as a first language and as an only language for a number of years. Their ages vary from mid-60s to early 90s. Previously, I worked with the late Doris White for two years, the late Eva Lewis for seven years, the late Tina Cole for five years, the late Yvonne Joseph for eight years, the late Chief Lawrence Baker for seven years. More recently, I have worked with Margaret Locke and Lena Jacobs for approximately two years and Frank Miranda for about half a year.

8.1. Elicitation

Elicitation is the primary method of data collection used in my fieldwork. This involves any of the following tasks:

(101) a. Providing an English sentence to the speaker and asking for a Sḵwx̱wú7mesh translation.

b. Providing a Sḵwx̱wú7mesh sentence to the speaker and asking for an English translation.

c. Providing a context, then presenting a Sḵwx̱wú7mesh sentence to the speaker and asking for a felicity judgement.

d. Asking speakers to compare two Sḵwx̱wú7mesh sentences and provide a judgement on which sentence is more appropriate and/or whether there is a difference in meaning.

e. Presenting a visual context (e.g., picture) to the speaker as well as a Sḵwx̱wú7mesh sentence and asking whether the sentence is appropriate given the context(s).

f. Presenting a variety of pictures to the speaker, as well as a Sḵwx̱wú7mesh sentence and asking which picture provides the most appropriate context.[36]

With the exception of two speakers, the speakers with whom I work do not read or write the Sḵwx̱wú7mesh language. As a result, each session involves oral discussion alone; speakers are not asked to read and translate Sḵwx̱wú7mesh sentences, nor are they asked to write Sḵwx̱wú7mesh sentences down. With respect to one speaker who did read and write the Sḵwx̱wú7mesh language, the same methods were used (as with the other speakers), but he chose to write the sentences down for himself.

Elicitation sessions are attended by elders, UBC linguists and members of the Squamish Nation Education Department. In some cases, sessions were attended by more than one speaker, and data was collected from both elders. As well, often more than one UBC linguist attended a given elicitation; sessions were open to all members of the Squamish Nation Education Department, so often administrators and teachers would attend, asking their own questions as well.

Recorded along with the Sḵwx̱wú7mesh and English sentences, are all volunteered sentences and glosses as well as all comments made by speakers. The importance of recording speaker comments has been noted in the literature (e.g., Mithun 2001); furthermore, Matthewson (in press) cautions the researcher to record all comments made by speakers as their translations alone may not be sufficient to base a conclusion; as she notes, "consultants' comments should be given the same weight as translations – they are a clue to meaning". Matthewson takes comments to include "statements the consultant makes about context, alternative ways of saying things, fine-grained grammaticality judgments, meanings of parts of words, comments about formality, alternative word order possibilities, and so on".

[36] In many cases, a variety of methods from the list above were used. As for pictures, this was not attempted until later in my research and thus data elicited via pictures are limited in scope.

Wherever possible, the same sentence has been elicited with different speakers as well as the same speaker on a different day/different elicitation session.

8.2. Texts

There are two sets of textual materials in Sḵwx̱wú7mesh available for reference: Kuipers (1967) and Kuipers (1969), the first and second parts of the only Sḵwx̱wú7mesh grammar that has been published. Texts are an important resource to be used in conjunction with elicitation. These texts offer extended discourses, as well as a picture of the Sḵwx̱wú7mesh language in the middle of the last century. Texts are limited resource, however, since they provide only possible structures in the language, and do not illustrate what is impossible, which is of great importance to this research as ungrammatical/infelicitous sentences show just as much as grammatical/felicitous sentences. Furthermore, the lack of certain structures in texts cannot be taken as an indication that those structures are not possible, nor can we assume that the meaning ascribed to a given sentence in a text is the only possible meaning. Thus, while textual materials are very relevant, they are used in this study as supplementary materials. Where possible, I have included data taken from the aforementioned texts in the relevant places throughout this thesis.

9. The fieldwork experience[37]

While this thesis is a formal linguistic study, the collection of data and relationships that developed through the fieldwork on which this work is based was an experience that stretched beyond theoretical linguistics. Since this is a major part of the involvement in this type of work, it is important and necessary to discuss the issues that lay outside the scope of formal linguistics that were, and continue to be, part of this experience.

Conducting fieldwork with Sḵwx̱wú7mesh elders in conjunction with the Sḵwx̱wú7mesh Nation Education Department is an experience that involves more that just data collection. Researchers have been given the opportunity to hear firsthand accounts of the lives of elders, the history of Vancouver, and the culture of the Squamish Nation, including traditions and songs. We developed strong relationships not only with the elders but with Sḵwx̱wú7mesh language teachers.

[37] This section is taken from Bar-el, Gillon and Jacobs (2004).

An important result of our research was an understanding of the relevance of our work for the Sḵwx̱wú7mesh community, that fieldwork can benefit the Sḵwx̱wú7mesh community and not just the academic community. In particular, we came to understand that (i) the participation of language teachers in these sessions has a direct impact on their teaching of the Sḵwx̱wú7mesh language, as well as their development of linguistic awareness of their language, (ii) the data collected can be used for curriculum development as part of the language revitalization efforts undertaken by the Sḵwx̱wú7mesh community, and (iii) our data directly contribute to the documentation of the Sḵwx̱wú7mesh language for future generations. Through our research we discovered that speakers appreciate our work and our interest in their language and culture. Furthermore, we became aware of the fact that our fieldwork sessions provided an opportunity for speakers to use the Sḵwx̱wú7mesh language.

A major result of this work is the uncovering of variations among speakers' grammars. Our research has shown that these differences should not be ignored. In my own research, this has become particularly relevant in my work on the Sḵwx̱wú7mesh auxiliary *mi*, which is often translated as 'come' and can be used as a main verb or an auxiliary (Kuipers 1967).[38] These facts have been replicated in my own fieldwork, along with an additional reading 'start/begin to' that occurs with some predicates. This reading, however, is not available for all speakers; crucially, the 'start to' reading was available to speakers that are no longer alive. The fact that there are only a handful of fluent native speakers of Sḵwx̱wú7mesh remaining has driven us to record these differences as they may not be visible to future researchers.

Perhaps most significantly, we have learned how important the Sḵwx̱wú7mesh language is to Sḵwx̱wú7mesh speakers. In particular, (i) they want the Sḵwx̱wú7mesh language and culture to survive, (ii) they see the connection between language and culture as inseparable, (iii) they want to pass the language down to the next generation, and (iv) they want to hear the children in the community speaking it.

[38] This is discussed in greater detail in Chapter Three.

10. Contribution of this thesis

This thesis makes four major contributions. First, it provides a formal semantic examination of the Sḵwx̱wú7mesh aspectual system. Aspect in Salish languages is a relatively new area of study in Salish linguistics and has become the focus of much research in recent years (see section 3.2). Thus far, work in this area has challenged many of the universal claims about aspect, this thesis will contribute to this body of work, hopefully inspiring new avenues of research on aspect in Salish languages.

Second, this thesis contributes to cross-linguistic theoretical research on aspect. Much of the work on aspect, though it spans a number of different languages and language families, has assumed that aspectual systems are all structured in the same way. This thesis challenges this claim by proposing that aspectual classification systems are a locus of cross-linguistic variation. Furthermore, this thesis forces us to reconsider some of the claims made for a language such as English, on which much work has been done, but has left many issues unexplained. Moreover, although the issue of aspect dates back to Aristotle, and has been the focus of a huge body of research since, a complete understanding of the range of aspectual systems cannot possibly be understood until as many languages as possible have been studied.

A fourth contribution that this thesis makes relates specifically to cross-linguistic data on aspect. Sḵwx̱wú7mesh, like all Salish languages, is an endangered language, with very few native speakers remaining. This work, based on data that may not be available in the next generation, contributes to the collection of cross-linguistic data on aspectual issues.

The final contribution pertains to the documentation of the Sḵwx̱wú7mesh language; Sḵwx̱wú7mesh is greatly endangered, with less than twenty fluent native speakers remaining whose ages range from their seventies to nineties. There is a great deal of work being done within the community to document the language, and to say that time is running out is a vast understatement. I hope that this thesis will not only contribute to the field of linguistics, but to the Sḵwx̱wú7mesh community as well, and their efforts to document as much of the language as possible so that it can be taught to younger generations and passed on to future generations.

Chapter 2: Intrinsic Final Points

> *"The difference in representations with and without endpoints ought to show up in the possibilities...for the interpretation of sentences which follow them. That is, one would...expect that when trying to place the ..constituent introduced by the next sentence within the narrative time structure we have already constructed, we would be able to make use of...end points" (Kamp and Rohrer 1989, Chapter One, p. 15-16, as quoted in Smith 1997, p. 66).*

1. On the relevance of final points

As shown in Chapter One, there are a number of different features that have been used to distinguish among predicate classes; *telicity* is a common feature used to distinguishes among predicate classes on the basis of final points. The terms *telic* and *atelic* were first coined by Garey (1957) to refer to situations that include or do not include a goal, respectively. Since then, the distinction has surfaced with a number of different terms (see Dahl 1981 and Brinton 1988 for a review). Definitions of telicity do vary among researchers; Smith (1997) suggests that a *telic* event has "a change of state which constitutes the outcome, or goal, of the event", while an *atelic* event is simply a process that can stop at any time and "has an arbitrary endpoint" (p. 19). In a Vendler-type four class system, telicity distinguishes accomplishments and achievements (telic) from activities and states (atelic).

I use the term "final points" to refer to final BECOME events in the representation of a predicate. Moreover, I use the term "intrinsic final points" to refer to the claim that final points are represented in the templates of aspectual classes; the predicates in some cases are morphologically complex, thus the final points are not necessarily part of the root meaning. This is crucial later in this chapter where I show that final points can be pragmatically conditioned; predicates with these types of final points differ from predicates with intrinsic final points in that the former can be cancelled while the latter cannot.

1.1. The presence of intrinsic final points in Sḵwx̱wú7mesh predicates

Final points parallel the notion of telicity; I suggest that a final point corresponds to a final change of state, represented by a final BECOME event in the denotation of a given predicate.

However, in this chapter I show that the notion of "final point" (and perhaps telicity as well) does not distinguish the aspectual classes in Sḵwx̱wú7mesh along the same lines as they do for English, for example. On the basis of four independent tests, I propose the following classification of final points in the meaning of Sḵwx̱wú7mesh predicates:

(1) *Sḵwx̱wú7mesh predicates: Final points*

	Representation	**Final Point**
Activity *swim, rest, laugh*	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	×
Accomplishment *write a book, fix the car*	$\lambda e.[(\text{DO}(P))(e) \wedge [\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]	×
Achievement *win, arrive, find a rock*	**$\lambda e.(\text{BECOME}(P))(e)$**	✓
Inchoative State *(get) angry, (get) cloudy*	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$	×

Comparing this to the presence of final points in Rothstein's proposals for English predicates, there is a significant difference, namely that accomplishments in Sḵwx̱wú7mesh do not have final points in the actual world, but rather an implicature of culmination. The contrast in the representations of accomplishments in the two languages is shown below:

(2) *Accomplishments: English vs. Sḵwx̱wú7mesh*

a. *English*

$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge ((\text{DO}(P))(e_1) \wedge \text{BECOME}(Q))(e_2)]$[1]

b. *Sḵwx̱wú7mesh*

$\lambda e.[(\text{DO}(P))(e) \wedge [\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]

[1] The incremental theme is not included in this representation (see Rothstein 2004 for details).

Although there are other differences between the proposed representation of Sḵwx̱wú7mesh aspectual classes and those that have been assumed for English, they relate to intrinsic initial points, and thus are discussed in Chapter Three.

1.2. Outline of this chapter

This chapter is organized as follows. I begin with an overview of and motivation for the four diagnostics used in this chapter to test for the presence of intrinsic final points in Sḵwx̱wú7mesh (§2). I then examine the first two diagnostics (culmination cancellation and event continuation) by providing the relevant data for each predicate class under examination and show that the results of these tests provide evidence that achievement predicates are the only class of predicates in Sḵwx̱wú7mesh that have final points in their representations (§3). Turning to the second two diagnostics (the scope of *ḵilh* 'almost' and the scope of negation), I again provide the relevant data for each predicate class and show that Sḵwx̱wú7mesh predicates all have only one reading with 'almost' and negation, event cancellation; I argue that this is evidence that, crucially, accomplishment predicates in Sḵwx̱wú7mesh lack final points (§4). I end the chapter by examining the issue of pragmatically-conditioned final points by looking at out of the blue judgements of Sḵwx̱wú7mesh predicates, and in particular, how culmination implicatures of Sḵwx̱wú7mesh accomplishments are derived (§5).

2. Diagnosing final points

In this chapter, I use the following diagnostics to argue for the above claims regarding the presence of final points in the representations of Sḵwx̱wú7mesh predicates:

(3) *Diagnostics for final points*

a. Culmination cancellation: conjunctions and questions

b. Event continuation: conjunctions and questions

c. The scope of *ḵilh* 'almost'

d. The scope of negation

These can be subdivided into two types of diagnostics: those that test whether a given sentence or discourse is felicitous (a-b) and those that test for ambiguity (c-d).[2] In this section I examine these diagnostics in detail, motivating their use as diagnostics for final points, and showing how they are replicated in Sḵwx̱wú7mesh.

2.1. Felicity conditions for culmination

In this section, I outline the two tests used to diagnose final points: culmination cancellation and event continuation. These two tests rely on the contrast between culmination entailments and culmination implicatures, discussed in §2.1.1. Furthermore, the sentences used for these tests must be in the perfective viewpoint, a claim which is motivated in §2.1.2. The tests are then discussed in detail in §2.1.3-4.

2.1.1. Entailment vs. implicature

The first two tests rely on the notion of entailments. An entailment is a semantic relation that holds in all possible worlds and thus cannot be cancelled. Entailment is often referred to as the relationship between two propositions where the truth of one proposition **requires** the truth of the other. The following is a common example; the sentence in (a) entails the sentence in (b):

(4) a. The president was assassinated.
b. The president is dead.

The idea is that the sentence in (a) could only be true if the sentence in (b) is true; that is, if it is true that the president was assassinated, it must be the case that the president is dead. If this were not the case, the event in (a) would not be considered a successful assassination.

This contrasts with an implicature, which can be cancelled, as it is not a requirement. Using a parallel description as above, the relationship between the two sentences is such that the truth of one merely **suggests** the truth of the other. Take the following sentence as an example:

[2] Unless otherwise noted throughout this thesis, the judgements provided are robust in Sḵwx̱wú7mesh among

(5) Mary had a baby and got married.

This sentence suggests that the two events occurred in the order they are uttered; that is, Mary first had a baby and then she got married). However, the sentence would be true even if the events occurred in the reverse order. This can be tested with the following sentence that adds a clause which overtly states that the events happened in reverse (bolded below):

(6) Mary had a baby and got married...**but not in that order.**

The second clause here cancels any entailment that the baby came first and then the wedding; but since the judgement in absence of the second clause is that it **did** happen in that order suggests that this is an implicature. This contrasts directly with the entailment example, which is infelicitous when continued with a clause that overtly states that the culmination was not reached (bolded below):

(7) # The president was assassinated...**but he isn't dead**.

I propose that one way to determine whether a predicate has a final point is to test whether or not it has a culmination entailment. If it does, I argue that this is evidence that the final point is part of the meaning of the predicate. I show in this chapter that only one predicate class has a culmination entailment (achievements); thus, I argue achievements are the only class of predicates that have a final point.

2.1.2. Why these diagnostics require the perfective viewpoint

Given my assumption that the perfective places the event time inside the reference time, it should be the case that each point of the event should be included inside the reference time. Thus with respect to entailments, perfective sentences are necessary to test whether or not a predicate has a final point; this is to say that if an event contains a final point, it will be

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the speakers with whom I work.

reached in the perfective viewpoint. In the imperfective viewpoint, the event is on-going; if while testing for a culmination entailment it seemed as though there were none, it would not be possible to tell whether that is due to the imperfective or the meaning of the predicate.

If a predicate has no final point, the perfective sentence will not entail that a culmination has been reached. Consider the following example of a stative predicate in English:

(8) John was sick yesterday.

This sentence is perfective, but there is no requirement for the state to be over within the reference time (that is, there is no requirement that John is well now); this is clearly shown by the fact that the sentence can be continued with *...and he is still sick today.* This is due to the fact that there is no final sub-event of culmination in the meaning of an English state, thus the state may have come to an end within the reference time (it may be the case that when John woke up this morning he was not sick, so his being sick ended at the end of the reference time), but there is no requirement to do so (as shown by the continuation of the sentence above).[3]

2.1.3 Test 1: culmination cancellation

I use this test in two ways; the first involves eliciting a simple sentence containing a perfective predicate and then conjoining it to a clause that overtly cancels the culmination by suggesting that the agent has not yet completed the event. Davis and Matthewson (2001) use this diagnostic to show similar facts in St'át'imcets (Lillooet; Interior Salish). An example of the diagnostic frame in Sḵwx̱wú7mesh is illustrated below:

(9)

chen	X...	welh	haw	k-an	i	huy-nexw	(wa X)
1S.SG	X...	CONJ	NEG	IRR-1CNJ	PART	finish-TR(LC)	(IMPERF X)

'I X-ed...but I didn't finish (X-ing).'

[3] The fact that the state CAN continue beyond the reference time is due to the fact that English states have the sub-interval property; that is, since every sub-event of being sick is the same as being sick. Since an English

Smith (1997 p. 65) suggests that another test that can be used to "delimit the semantic meaning of a sentence"[4] is questions. As she notes, "if the sentence presents an open situation, questions about its continuation are reasonable;[5] if the situation is closed, such questions are not reasonable". Smith defines open/closed situations with respect to perfective and imperfective viewpoints; that is, "perfective viewpoints are closed informationally, in the sense that they present situations as complete with both endpoints. Imperfectives are open". In the English examples below, the first statement in the narrative sequence in (a) presents a perfective sentence and the first statement in the narrative sequence in (b) presents an imperfective sentence:

(10) a. i. Martin walked to school.
ii. #Did he get there?

b. i. Martin was walking to school.
ii. Did he get there?

(Smith 1997; 65, adapted from ex. 8)

Smith argues that the question is reasonable for the imperfective sentence (b), but strange with the perfective (a) because the perfective sentence provides the answer to the question; that is, the perfective predicate in (a) entails that Martin did get to school, thus the question is in some sense redundant.[6]

I replicate this test in Sḵwx̱wú7mesh in the following way. I present the speakers with a perfective sentence and then present a question that asks whether the event finished. In some cases, I have presented the two sentences as a dialogue where I will give the sentence and then another researcher will ask the question. I then ask the speaker if these are appropriate questions to ask given the previous statement, or if the dialogue makes sense to

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state has no final point, there is no need for the state to end at any point within the reference time. If it does, this is an implicature, as it is easily shown to not have the requirement to end.

[4] It is not clear what Smith means by "semantic", and whether it is in opposition to "non-semantic" and if so, what that would entail.

[5] I take Smith's "reasonable" to mean felicitous in the given context and "strange" to mean infelicitous in the given context.

[6] For Smith there is an additional factor of telicity here, since accomplishments and activities differ with respect to their entailments in the perfective (see Chapters Four and Six for further discussion about perfective activities and accomplishments).

them. The type of question used for this diagnostic is given below where the question in asks whether the event is complete:

(11) na u huy-nexw-as
RL Q finish-TR(LC)-3ERG
'Did she finish (it)?'

Although both *huy* 'finish' and *tl'iyi7* 'stop' are compatible with activities and accomplishments in Sḵwx̱wú7mesh, speakers have clear judgements regarding their meaning. This is illustrated by the volunteered sentences and translations given below:

(12) *Speaker's comments (volunteered): "there are two [different] words"*

a. chen tl'iyi7
1S.SG stop
'I stopped.' (volunteered gloss)

b. chen huy
1S.SG finish
'I finished.' (volunteered gloss)

If the dialogue consisting of the perfective sentence and following question is judged felicitous, I take this to mean that the perfective sentence does not entail culmination and thus the predicate does not have a final point. On the other hand, if the dialogue is infelicitous, I take this to mean that the perfective sentence does entail culmination and thus the predicate does have a final point.

2.1.4. Test 2: event continuation

Another test that I use to test the presence of a final point in the meaning of a predicate is event continuation. This involves conjoining a clause containing a perfective predicate with a clause that asserting that the event (may have) continued. The diagnostic frame used for Sḵwx̱wú7mesh is given below:

(13) na X... (iw'ayti) na7-xw wa X
RL X... (maybe) RL-STILL IMPERF X
'He/She Xed...and (maybe) he's/she's still X-ing.'

As with culmination cancellation, questions can be used for this diagnostic as well. The questions in (a) and (b) below are two variations of asking whether the event is still in progress.

(14) a. na u men wa we7u wa ...
RL Q just IMPERF continue IMPERF
'Is he still...?'

b. na7-xw u wa...
RL-still Q IMPERF
'Is he still...?'

The second clause in (14) and the questions in (15) are given in the imperfective in order to ensure that the sentences are not judged infelicitous for the wrong readings. Data reveal that with the exception of individual level states (which are not covered in this thesis), Sḵwx̱wú7mesh predicates that are marked by the morpheme *–xw* only appear in imperfective clauses (clauses marked with *wa*).

2.2. Event cancellation vs. event non-completion

Dowty (1979) uses English *almost*, and the different effects it has, as a diagnostic that distinguishes activities from accomplishments, which are prototypical atelic and telic predicates, respectively. As telicity is taken as a feature that parallels the final points of events, I use *ḵilh* 'almost' in Sḵwx̱wú7mesh as a means of testing for the presence of final points in a given predicate. Negation behaves in much the same way: negation can have different scope-taking possibilities, depending on the structure of the predicate. As with 'almost', I use the results of negation in Sḵwx̱wú7mesh as a diagnostic for determining the structure of predicates, and in particular, the presence of final points.

2.1.1. Test 3: the scope of *ḵilh* 'almost'

2.1.1.1. Ambiguity induced by *almost*

As Morzycki (2004) discusses, *almost* (and other modifiers of the same class) can modify phrases of different categories, including DP, PP and VP. As I am concerned with predicates

here, I focus on the way in which *almost* modifies VPs; I use this as another diagnostic to determine whether or not a predicate has an inherent final point.

As noticed initially by McCawley (1971) and discussed in Dowty (1979), different readings arise when *almost* modifies a VP, depending on the class of the predicate. Dowty suggests that *almost* contrasts activity predicates and accomplishment predicates such that accomplishments have two possible readings when modified by *almost* whereas activities have only one reading. This is illustrated in the data below:

(15) a. John almost fixed the car. (ACCOMPLISHMENT)

(i) = John had the intention of fixing the car, but changed his mind
✓EVENT CANCELLATION

(ii) = John began to work on fixing the car, but didn't quite finish
✓EVENT NON-COMPLETION

b. John almost drove the car (ACTIVITY)

(i) = John had the intention of driving the car, but changed his mind
✓EVENT CANCELLATION

(ii) ≠ John started to drive, but didn't finish
✗EVENT COMPLETION

The *event cancellation* reading indicates that no event of the type denoted by the predicate takes place. The *event non-completion* reading indicates that the event denoted by the predicate has begun, but has not been completed (= has not culminated). As (a) shows, accomplishments are ambiguous between the two readings. This is a result of the fact that accomplishments are made up of both activity portions and final culminations. *Almost* can modify the entire event (event cancellation), or the final culmination (event non-culmination) alone. Activities on the other hand, are not ambiguous, and have only the event cancellation reading (bi). There are other available readings for the data above, which I will address later.

Pustejovsky (1991) suggests that *almost* distinguishes between accomplishments and non-accomplishments, that is, not just activities, but other predicates as well. For example, achievements modified by *almost* have event cancellation readings only, as shown below:

(16) a. John almost reached the summit.
(i) = John did not reach the summit (yet)
(ii) ≠ John started to reach the summit but stopped halfway through

b. John almost finished.
(i) = John did not finish (yet)
(ii) ≠ John started to finish but stopped halfway through

Along the same lines, Wilhelm (2003) notes that "'almost' seems more sensitive to event complexity than to telicity per se" (p. 82). I agree with her comment and will demonstrate in the following sections that this seems to be true for Sḵwx̱wú7mesh as well.

2.1.1.2. *Almost* as evidence for lexical decomposition

The fact that *almost* gives rise to a variety of readings has been taken as evidence for the lexical decomposition of verbs; the different interpretations observed relate to differing scopes for *almost* (Rapp and von Stechow 1999, McCawley 1971). This is illustrated with the verb *kill* below that consists of the operators ACT, CAUSE and BECOME, as well as the resultant state *dead*. In the sentence *John almost killed Harry*, *almost* can take the widest scope, over the entire event (a), medial scope over CAUSE (b), or the lowest scope over the resultant state *dead* (c). The following are the representations given by McCawley (as discussed in Rapp and von Stechow):[7]

(17) *John almost killed Harry.*

a. **almost**(ACT(John) CAUSE BECOME dead(Harry)) *counterfactual*
John almost did something
= John resisted acting on his rage

b. ACT(John) **almost**(CAUSE BECOME (dead(Harry)) *scalar*
John did something, and it almost caused Harry's death
= John shot at Harry, but missed

[7] Rapp and von Stechow do not discuss another possible scope for almost, namely one where *almost* takes scope above BECOME but below CAUSE. This reading would correspond to a reading where John did something which caused Harry to almost become dead. It is not quite clear whether this is a different reading (b) or (c), though it is different from (a). If it is a possible reading but it not available, this will need to be explained.

c. ACT(John) CAUSE BECOME **almost**(dead(Harry)) *resultative*
John did something, and it caused Harry to be almost dead
= John wounded him seriously

The reading in (a) above is such that John almost did something that would have had the effect of Harry's dying. Rapp and von Stechow call this "the outer or counterfactual reading of *almost*" (p. 157).

The readings in (b) and (c) above constitute Rapp and von Stechow's "inner readings" (p. 157). In both these cases, *almost* modifies only a part of the verb meaning. The scalar reading in (b) suggests that John did something which almost had the effect of Harry's dying. The resultative reading in (c) suggests that John did something which had the effect of Harry's becoming almost dead. As Rapp and von Stechow suggest, there is a clear contrast between the inner and outer readings; in the case of the outer reading, the event does not take place at all. On the other hand, the inner readings for the sentence above both describe events in which the killing was initiated but not completed.

Based on *fast* 'almost' in German, Rapp and von Stechow give the following meaning rule for the core meaning of almost:[8]

(18) **fast** is of type <s, <<s,t>,t>>. Let w be any world:
F(fast)(w)(p) = 1 iff (a) and (b) hold.
(a) There is a world w' which is almost not different from w and p(w') = 1
(b) P(w) = 0

Rapp and von Stechow's representations of McCawley's examples above are shown below:

(19) *John almost killed Harry*
a. **almost**(w)(λw$\exists$e[AGENT_{ew}(John) $\wedge$ BECOME_{ew} (λwλs.DEAD_{sw}(Harry))]) counterfactual

b. $\exists$e[AGENT_{ew}(John) $\wedge$ **almost**(w)(λw. BECOME_{ew}(λwλs. DEAD_{sw}(Harry)))] scalar

[8] They note that this rule closely follows Sadock (1981) but with an additional modification: Sadock proposes that (b) is an implicature. As I do not believe that the exact meaning of *almost* affects the analysis, I adopt Rapp and von Stechow's proposal that *almost* yields different scopal readings and that these readings tell us something about the representations of predicates. I suggest that other similar analyses (such as Sadock's) would be compatible with my argumentation.

c. $\exists e[\text{AGENT}_{ew}(\text{John}) \wedge \text{BECOME}_{ew}(\lambda w \lambda s.\ \textbf{almost}(w)(\lambda w.\ \text{DEAD}_{sw}(\text{Harry})))]$
resultative

Dowty suggests that it is not clear whether the different readings for sentences with *almost* result from structural ambiguities or vagueness; in other words, it may be the case that *almost* has only one meaning, like that suggested by Sadock (1981): "there is a possible world very similar to the actual world in which 'x VERBs is true". The result would be that this meaning could be appropriate for all of the readings available. Morczycki (2004) suggests that a virtue of the scope explanation is that there is a single "almost" with a single denotation and the variation of interpretation results from the position. I adopt Morczyki's point of view and use *kilh* 'almost' as a test for the representation of Skwxwú7mesh predicates, and in particular, for the presence of final points.

2.1.2. Test 4: the scope of negation

Negation provides further evidence of the presence of final points. Like *almost*, negation can take scope over different parts of a predicate's structure. For example, the English sentence below that contains an accomplishment predicate, has two possible interpretations:[9]

(20) John didn't fix his car. (John hasn't fixed his car yet)

= John didn't event start fixing his car (John didn't fix his car, he decided to buy a new one instead)

= John has started fixing his car, but he didn't finish yet (John didn't fix his car yet – he started yesterday and is hoping to be finished today)

In English, there are two ways to reverse the truth value of a clause containing an accomplishment predicate such as *fix his car*: he could not start or he could not finish. Every predicate has an event cancellation reading; the question is which predicates, if any, have an event non-completion reading in Skwxwú7mesh. If a predicate is complex and has an intrinsic final point, negation should take scope over that final point, inducing an event non-

[9] For some speakers, "yet" might be needed for the second reading; I set that aside here as the analysis of this is beyond the scope of this discussion.

completion reading. If it does not induce an event non-completion reading, I take this as evidence that the predicate has no intrinsic final point.

3. Diagnosing final points in Sḵwx̱wú7mesh: felicity conditions for culmination

In this section, I explore how the predicate classes under examination behave with respect to the first two tests: (i) culmination cancellation and (ii) event continuation. Here I rely on two methods: conjunction and questions. I examine these two tests in parallel throughout the section. Based on the data in the remaining sections, I show the following results of these first two diagnostics for final points. In particular, I illustrate which predicates have an entailment of culmination and which do not. It is these results that motivate the following claims with respect to presence of final points in the representation of Sḵwx̱wú7mesh predicates:

(21) *Sḵwx̱wú7mesh Final points: culmination entailments*

	Culmination	Final Point
Activity	no entailment	×
Accomplishment	implicature	×
Achievement	entailment	✓
Inchoative state	no entailment	×

3.1. Sḵwx̱wú7mesh activities

Given that activity predicates are cross-linguistically defined as atelic, thus having no final point in its meaning, it may seem futile to even consider whether or not activities in Sḵwx̱wú7mesh have a culmination implicature. However, since the representation of activities presented in this thesis is very different from English, for example, (Sḵwx̱wú7mesh activities have no final points), I am making as few assumptions as possible regarding activities. That is, although it seems to be straightforwardly expected, I will show explicitly that Sḵwx̱wú7mesh activities do not have final points either.

3.1.1. Sḵwx̱wú7mesh activities do not culminate

The data below show that the termination of a Sḵwx̱wú7mesh activity can be cancelled without inducing any contradiction. This is illustrated by the following data, which are all

judged felicitous by speakers:

(22) a. na lulum ta John welh haw k-as i huy
RL sing DET John CONJ NEG IRR-3CNJ PART finish
'John sang, but he didn't finish the song.'[10]

b. na t'ich-im lha Mary
RL swim-INTR DET Mary
welh haw k-as i huy
CONJ NEG IRR-3CNJ PART finish
'Mary swam but she didn't finish swimming.'

Data involving short conversations consisting of a statement and a following question show the same results: the culmination of the activity can be cancelled without inducing any contradiction:

(23) A: na t'ich-im lha Mary
RL swim-INTR DET Mary
' Mary swam.'

B: na u huy
RL Q finish
'Is she finished?'

(24) A: na lulum lha Mary
RL sing DET Mary
'Mary sang.'

B: na u huy
RL Q finish
'Is she finished?'

In English, sentences such as these might be judged infelicitous as 'finish' in English is claimed to be incompatible with activities (there is not culmination, so nothing can be "finished"). The data above show that even though in Sḵwx̱wú7mesh, *huy* 'finish' IS

[10] Although the predicate is an activity and has no overt object in the sentence, the speaker seems to coerce the predicate into an English accomplishment ('sing a song'), presumably since in English it might sound more

compatible with English activities, sentences such as these are felicitous. This is evidence that Sḵwx̱wú7mesh activities, like English activities, lack final points as they have no entailment of culmination.

3.1.2. Sḵwx̱wú7mesh activities can continue

Sḵwx̱wú7mesh activities also parallel English activities in that perfective activities in Sḵwx̱wú7mesh can be continued without inducing infelicity; they differ from Smith's characterization of English activities in that they are compatible with a simple continuation, and do not need the assertion of a new unit of activity (see Chapter Six for further discussion). This is illustrated in the examples below where the first clause contains a perfective predicate (indicated by the lack of any overt imperfective marking), and the conjoined clause contains an imperfective predicate (indicated by the addition of the imperfective morpheme *wa*). In most cases, the speaker translates the sentence in the English simple past (a-b), and in others, the sentences are translated in the English present progressive (c-d):[11]

(25) a.

na	shupn	lha	Carrie		
RL	whistle	DET	Carrie		
	iw'ayti	na7-xw		wa	(shu-)shupn
	maybe	RL-still		IMPERF	(REDUP-)whistle

'Carrie whistled, maybe she's still whistling.'

b.

na	kw'eyilsh	lha	Mary	
RL	dance	DET	Mary	
	i	na7-xw	wa	kw'eyilsh
	CONJ	RL-still	IMPERF	dance

'Mary danced and she's still dancing.'

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plausible to finish a song rather than just finish singing. I expect that the translation 'John sang, but he didn't finish singing' is also possible.

[11] The present progressive is an artifact of the English translation; these are not, I argue, progressive sentences. English lacks a simple present tense that does not have a habitual reading, and thus the progressive is used. I expect simple past translations to also be available for these sentences (see Chapters Four and Five for further discussion on grammatical aspect).

c. na imesh kwa John
RL walk DET John

i iw'ayti na-xw wa imesh
CONJ maybe RL-still IMPERF walk

'John is walking and maybe he's still walking.'

d. na paym kwa John
RL rest DET John

iw'ayti na7-xw wa paym
maybe RL-still IMPERF rest

'John is resting and he's still resting.'

The behaviour of Skwxwú7mesh activity predicates in sentence/question dialogues provide evidence of the same effect: Skwxwú7mesh activities do not have inherent final points. The examples below illustrate that the sequence of a perfective activity predicate followed by an interrogative that questions whether the activity has reached a culmination point is completely grammatical; speakers do not find sequences such as these unusual in any way:

(26) a. na paym kwa John
RL rest DET John
'John is resting.'

b. na7-xw u wa paym kwa John
RL-still Q IMPERF rest DET John
'Is John still resting?'

(27) a. na t'ichim lha Mary
RL swim DET Mary
'Mary swam.'

b. na7-xw u wa (t'i-)t'ichim
RL-still Q IMPERF (REDUP)-swim
'Is she still swimming'?

The translations given for the sequence of (26a-b) is strange in English as it induces a tautology.[12] Recall that in Sḵwx̱wú7mesh, perfective activities can be translated in the present or past. The fact that the sentence in (a) is translated in the present progressive but does not induce an infelicitous sequence with the following sentence provides evidence that while the progressive translation is given in (a) and (b), the predicate cannot actually be itself a progressive form of the predicate; otherwise the tautology that is observed in English would be expected.

3.1.3. Conclusions: Sḵwx̱wú7mesh activities have no intrinsic final points

A summary of the generalizations for Sḵwx̱wú7mesh activity predicates shown in this section are given the table below:

(28) *Activities: Culmination cancellation and Event Continuation*

	TEST 1 CULMINATION CANCELLATION		TEST 2 EVENT CONTINUATION	
	Conjunctions	**Questions**	**Conjunctions**	**Questions**
Activities	✓	✓	✓	✓

Sḵwx̱wú7mesh activity predicates parallel English activity predicates (so far) in that they have no culmination point as part of their meaning.

Rothstein's template for activities straightforwardly accounts for this fact since the denotation of an activity for her is simply a bare predicate under a DO operator; in other words, there is no final BECOME event as part of the meaning of activity predicates:

(29) *English activities* (*Rothstein*)

λe.(DO(P))(e)

Sḵwx̱wú7mesh activities are, however, different from English activities - not with respect to final points, but with respect to initial points. I argue that Sḵwx̱wú7mesh activities, in

[12] Hotze Rullman (p.c.) suggests that this need not be the case; some time may have elapsed between the event in (a) and the question in (b), or it may be the case that the sentence in (b) is an expression of surprise (most

addition to DO sub-events, have initial points in their representations (the presence of the initial point is motivated in Chapter Three):

(30) $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$

This template, although different from the representation containing DO alone, will still account for the absence of culmination points in activity predicates.

Combining this representation with Kratzer's (1998) semantics for the perfective results in the following representation:

(31) $\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2) \wedge \tau(e) \subseteq t]$

There is no culmination entailment in the perfective here since there is no culmination included in the representation of the predicate. The fact that a perfective activity can still be continued without inducing a contradiction results from the fact that there is an activity event whose event time is included inside the reference time; if the event is continued after the reference time it is another event of the same type. Note, however, that it is not the entire event (initial point plus DO sub-event) that is continued, but only the DO sub-event of the activity. To continue the event (for example, when *–xw* 'still' is added), an imperfective morpheme is required which, unlike the perfective, places the reference time within the event time. In the imperfective, only the DO sub-event of the activity is then visible, and thus only the DO portion continues in the second clause.

The following is a summary of the representation of Sḵwx̱wú7mesh activity predicates, their absence of a final point, and the results of the final point tests that show they have no entailment of culmination:

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likely with stress on *still*). I did not control for these other readings in Sḵwx̱wú7mesh or English (see Chapter Six), thus I leave this issue for further research.

(32) *Activities: Culmination*

	Representation	Final Point	Culmination
Activity	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	×	No entailment

3.2. Sḵwx̱wú7mesh accomplishments

I propose that Sḵwx̱wú7mesh accomplishments do not have final points. Given the fact that perfective accomplishments in Sḵwx̱wú7mesh yield past culminated readings in out of the blue contexts, this might appear to be a problem. However, I will show in this section that the culmination observed in out of the blue contexts is only an implicature, not an entailment.

3.2.1 Sḵwx̱wú7mesh accomplishments need not culminate

The culmination of a perfective accomplishment can be cancelled without inducing a contradiction. This can be seen in examples where the culmination is explicitly denied, as shown below:

(33) a. na p'aya<u>k</u>-ant-as ta John ta snexwilh-s
RL heal-TR-3ERG DET John DET canoe-3POSS
welh haw <u>k</u>-as i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR(LC)-3ERG

'He fixed his canoe but he didn't finish (fixing) it.'

b. chen p'ats'-an ta hem'ten
1S.SG sew-TR DET blanket
welh haw <u>k</u>-an i huy-nexw
CONJ NEG IRR-CNJ PART finish-TR(LC)

'I sewed a/the blanket but did not finish it.'

c. na mikw'-int-as ta lh<u>x</u>enptn lha Mary
RL wash-TR-3ERG DET floor DET Mary
welh haw <u>k</u>-as i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR(LC)-3ERG

'Mary washed the floor but she didn't finish.'

d. chen ilhen kwi sk̲awts
1S.SG eat DET potato

welh haw k̲-an i huy-nexw
CONJ NEG IRR-1CNJ PART finish-TR(LC)

'I ate a potato but never finished it.'

e. kwa John na k̲w'el-nt-as ta sk̲awts
DET John RL cook-TR-3ERG DET potato

welh haw k̲-as i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR(LC)-3ERG

'John boiled a potato but never finished it.'

f. chen lhen'-t ta hem'ten
1S.SG weave-TR DET blanket

welh haw k̲-an i huy-nexw
CONJ NEG IRR-1CNJ PART finish-TR(LC)

'I'm making the blanket, but I didn't finish it.'[13]

Further evidence that perfective accomplishment predicates do not entail culmination comes from data involving questions. Declarative sentences that include perfective accomplishment predicates can be followed by questions that do not presuppose the completion of the event; in this respect, they behave like activities. This is illustrated by the short dialogues in the data set below; each of the sequences of sentences followed by questions is accepted by speakers and not judged unusual in any way:

(34) a. na cha7-st-as kwi kw'axwa7 lha Mary
RL do-CAUS-3ERG DET box DET Mary
'Mary made a box.'

b. na u huy-nexw-as
RL Q finish-TR(LC)-3ERG
'Did she finish it?'

[13] Again, the progressive here is an artifact of the English translation and should not, I argue, be understood as a source of confusion; the addition of adverbials (such as kwi chel'ak̲lh 'yesterday'), or clauses that indicates some past reference time (such as *na7 tkwi 7an'usk̲* 'two o'clock' or *kwi ses tl'ik̲ kwa John* 'when John arrived') consistently yield simple past English translations.

(35) a. na kw'el-t-as kwi smeyts kwa John
RL cook-TR-3ERG DET meat DET John
'John cooked the meat.'

b. na u huy-nexw-as
RL Q finish-TR-3ERG
'Did he finish?'

(36) a. na ilhen-t-as ta skawts kwa John
RL eat-TR-3ERG DET potato DET John
'John ate a potato.'

b. na u huy-nexw-as ta skawts
RL Q finish-TR(LC)-3ERG DET potato
'Did he finish it?'

The culmination of accomplishment predicates in out of the blue sentences is clearly cancelable, suggesting that the culmination observed in, for example, out of the blue sentences is an implicature, rather than an entailment (see Section 5). I take this as evidence that these predicates have no final points.

3.2.2. Skwxwú7mesh accomplishments can continue

The lack of culmination entailment is also illustrated in examples where the perfective accomplishment event is continued without inducing a contradiction, as the examples in (23) are accepted by speakers and are not deemed unusual in any way:

(37) a. na xel'-t-as ta sxwexwiy'am' lha Mary
RL write-TR-3ERG DET story DET Mary
iw'ayti na7-xw wa xel'-t-as
maybe RL-still IMPERF write-TR-3ERG
'Mary wrote a story. Maybe she's still writing it.'

b. chen kw'el-t ta smeyts ti natlh
1S.SG cook-TR DET meat DET morning
iw'ayti wa7-xw wa kw'el ta smeyts
maybe IMPERF-still IMPERF cook DET meat
'I cooked the meat this morning and it's still cooking.'

c. na lhen'-t-as ta hem'ten lha Linda
RL weave-TR-3ERG DET blanket DET Linda

iw'ayti na7-xw wa lhen'-t-as
maybe RL-still IMPERF weave-TR-3ERG

'Linda's making a blanket, maybe she's still making it.'[14]

d. na mikw'-int-as ta lhx̱enptn lha Mary
RL wash-TR-3ERG DET floor DET Mary

i na7-xw wa mikw'-int-as
CONJ RL-still IMPERF wash-TR-3ERG

'Mary is washing the floor and she's still washing it.'

Furthermore, questioning whether a perfective accomplishment in Sk̲wx̲wú7mesh continues is also judged felicitous, as the example below shows:

(38) a. na k̲w'el-t-as kwi smeyts kwa John
RL cook-TR-3ERG DET meat DET John
'John cooked meat.'

b. na u men wa we7u wa k̲w'el-t-as
RL Q just IMPERF continue IMPERF cook-TR-3ERG
'Is he still cooking it?'

3.2.3. Sk̲wx̲wú7mesh accomplishments have no intrinsic final points

A summary of the generalizations for Sk̲wx̲wú7mesh accomplishment predicates shown in this section are given the table below:

(39) *Accomplishments: Culmination cancellation and Event Continuation*

	TEST 1 CULMINATION CANCELLATION		TEST 2 EVENT CONTINUATION	
	Conjunctions	**Questions**	**Conjunctions**	**Questions**
Accomplishments	✓	✓	✓	✓

The table above shows that unlike English accomplishments, Sk̲wx̲wú7mesh accomplishments have no final point. This accounts for why, unlike in English, canceling the

culmination of a perfective Sḵwx̱wú7mesh accomplishment does not induce contradiction and continuing the event denoted by a perfective Sḵwx̱wú7mesh accomplishment is felicitous.

Rothstein's template for English accomplishments does not make the correct predictions for Sḵwx̱wú7mesh since culmination is built into the basic meaning of English accomplishments; Rothstein's template below shows that the culmination point, here represented by the BECOME event, is part of the meaning of the accomplishment:[15]

(40) *English Accomplishments*

$\lambda e.\exists e_1 \exists e_2 [e =^{s} (e_1 \sqcup e_2) \wedge DO(P)(e_1) \wedge BECOME(Q)(e_2)]$

Removing the BECOME event from the denotation of accomplishments correctly predicts that Sḵwx̱wú7mesh perfective accomplishments do not necessarily culminate. This is illustrated below (since there is no longer a conjoined event, I have removed e_1 and e_2 from the representation):

(41) *Sḵwx̱wú7mesh Accomplishments (first pass)*

$\lambda e.(DO(P))(e)$

However, as I show in §5, Sḵwx̱wú7mesh accomplishments are interpreted as culminated in out of the blue contexts. This is shown by the data below:

(42)	na	**x̱el'-t-as**	ta	sx̱wex̱wiy'am'	lha	Mary
	RL	**write-TR-3ERG**	DET	story	DET	Mary

'Mary wrote a story.'

Speaker's comments: "She wrote it...she finished."

As the speaker's comments in the above data indicate, the sentence is interpreted as having culminated. However, as I have shown in this section, this culmination can be cancelled without inducing any contradiction. I conclude, then, that the culmination is an implicature.

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[14] See footnote 11.

[15] I have left the thematic arguments out of this representation.

The template given above does not alone predict the culmination implicature that is observed with perfective accomplishments in out of the blue contexts. I propose the following template that accounts for the fact that accomplishments culminate in some contexts, but need not. The culmination is reached only in an inertia world:

(43) *Skwxwú7mesh Accomplishments (revised)*

λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]

As I did above for activities, I now combine the representation proposed for accomplishments with Kratzer's (1998) semantics for the perfective. This results in the representation below:

(44) ∃e[(DO(P))(e) ∧ ∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]] ∧ τ(e) ⊆ t]

Since there is no final BECOME event, there is no entailment of culmination in perfective sentences containing this predicate. The culmination is reached only in inertia worlds where there is no evidence to the contrary.

The following table summarizes the representation of Skwxwú7mesh accomplishments their lack of a final point, and the result of the final point tests that show there is no entailment of culmination, but rather an implicature:

(45) *Accomplishments: Final points*

	Representation	**Final Point**	**Culmination**
Accomplishment	λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]	×	Implicature

I will discuss how this implicature is derived in greater detail in §5. For the remainder of §3 I examine the final two predicate classes: achievements and inchoative states.

3.3. Sḵwx̱wú7mesh achievements

Thus far I have shown that Sḵwx̱wú7mesh is like English with respect to activities in that in neither language do they have final points. Sḵwx̱wú7mesh and English differ with respect to accomplishments in that I propose that they lack final points whereas English accomplishments have them. In this section, I show that Sḵwx̱wú7mesh achievements are like English in both languages, they have final points. Unlike accomplishments in Sḵwx̱wú7mesh that have culmination implications, I show in this section that Sḵwx̱wú7mesh achievements have culmination entailments.

3.3.1. Sḵwx̱wú7mesh achievements necessarily culminate

Contrary to activities and accomplishments, canceling the culmination of an achievement results in a contradiction, and as such, is judged infelicitous:

(46) #chen mekw'-em ta ayalhḵw
1S.SG find-INTR DET beach

welh haw ḵ-an lhḵ'i7-st-an ḵ-as encha
CONJ NEG SBJ-1CNJ know-caus-1 IRR-3CNJ where

attempted gloss: 'I found the beach but I don't know where it is.'
Speaker's comments: (response to "am I contradicting myself?") "yes"

(47) #na xelḵ'-em ta skakl tiná7 ta yay'wes
RL fall-INTR DET baby from DET bed

welh na7-xw wa na7 ta yay'wes
CONJ RL-still IMPERF LOC DET bed

attempted gloss: 'The baby fell/was falling from the bed but he is still on the bed.'[16]

(48) #na tl'exwenḵ kwa John welh na tl'exw-et-em
RL win DET John CONJ RL get.beat-TR-PASS
attempted gloss: 'John won/was winning, but he lost.'
Speaker's comments: "[laughs] How could he win and lose?...you don't say those words together"

[16] H. Davis (p.c.) suggests that this is not pragmatically plausible (c.f., 'The baby fell from the airplane...'), and as a result, the sentence might be infelicitous for the wrong reasons. Smith (1997) uses 'fall from a bed'

These data show that indeed achievements have culmination entailments as they cannot be cancelled without inducing a contradiction.

3.3.2. Skwxwú7mesh achievements cannot be continued

The addition of a clause continuing the event also results in a contradiction, and thus is judged infelicitous as well, as illustrated below:

(49) a. #na tl'ik kwa John na7 t-kwi an'us-k
RL arrive DET John LOC OBL-DET two-o'clock

iw'ayti na7-xw wa tl'ik
maybe RL-still IMPERF arrive

attempted gloss: 'John arrived at two, maybe he is still arriving.'

b. #na xelk'-em ta skakl tiná7 ta yay'wes
RL fall-INTR DET baby from DET bed

i na7-xw wa xelk'-em
and RL-still IMPERF fall-INTR

attempted gloss: 'The baby fell from the bed, and he's still falling.'
Speaker's comments: "Do you mean 'still falling'? No...not proper."

c. #na tl'exwenk kwa John i na7-xw wa tl'exwenk
RL win DET John CONJ RL-still IMPERF win
attempted gloss: 'John won and he's still winning.'

Regarding (c) above, the speaker adds (in my impression, in an attempt to make some sense of it) that if the intended meaning is that 'John won again' the following sentence would be the way to express that:[17]

(50) na kiy'át tl'exwenk
RL again win
'He won again.'

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examples to illustrate progressive achievements in Navajo. Further data is needed to show whether or not pragmatics are interfering here; I leave this for future research.

[17] Cf. French *encore*, which is translated as 'still' or 'again', depending on the context.

This data illustrates that perfective achievement predicates entail culmination in the perfective since the addition of any information to the contrary results in a contradiction. This, I argue, provides clear evidence that achievement predicates have final points.

In the following case, an achievement predicate CAN be continued, but notice that the subject is plural and crucially, the speaker's comments suggest that the meaning of the sentence is such that some people had arrived and others had not yet arrived. However, it does not seem to be the case that none of them had completely arrived:

(51) na tl'ik ta-n siiyay' ti natlh
RL arrive DET-1POSS friends DET morning

na7-xw wa tl'i-tl'ik
RL-still IMPERF REDUP-arrive

'My friends arrived this morning...they're still arriving.'
Speaker's comments: "there were still more coming"

In the following sentence, an achievement predicate seems to be able to be continued as well. However, the speaker's gloss suggests that it is not that the event has not yet culminated (as with accomplishments, for example), but that the entire event happened again (see Chapter Five on imperfective achievements):[18]

(52) chen tl'exw-et-em
1S.SG get.beat-TR-PASS

i na7-xw chen wa tl'exw-et-em
CONJ RL-still 1S.SG IMPERF get.beat-TR-PASS

'I got beat and I got beat again.'

Although the translation provided for the sentence above is not a direct translation, it is nonetheless very telling.

In Chapter Five, I will argue that *wa* (which appears in the above sentence with *–xw*) is an imperfective morpheme and show that it induces on-going and habitual readings. Taking multiple events to be part of the meaning of the habitual, this may be an avenue of

[18] I argue that this is an achievement based on the behaviour of this predicate on other diagnostics – e.g., out of the blue sentences and its behaviour with the imperfective.

analysis for what is going on here. That is, the translation of the sentence in (47) suggests another event occurred; this may be due to the use of the imperfective as an indicator of multiple events. A remaining question is whether accomplishments have 'again' readings with *–xw*. This was unfortunately not tested, though the 'again' translation was never volunteered for accomplishments. I suggest that the contrast between achievements and accomplishments in this matter is most likely due to their contrast in final points in their representations; *wa* induces both in-progress and habitual readings with accomplishments, but either infelicitous judgements or habitual readings with achievements. Given that habitual readings with accomplishments seem to require context (that is, they are not volunteered readings), the in-progress reading seems to be the more salient of the two. I suggest that while the 'again' reading might be possible with accomplishments, it would require context to force it. With achievements, on the other hand, the habitual reading is the only reading that seems to be available for the imperfective marker if the sentence is judged felicitous. Thus, assuming there is a connection between the habitual reading and the 'again' reading above, the 'again' reading might be expected to be more easily available with achievements than with accomplishments. As I have not yet elicited these data with accomplishments, I leave this issue for further research.

Data with questions provide further evidence of the presence of final points in the denotation of achievement predicates. The examples below show that a dialogue of a sentence containing a perfective achievement followed by a question that asks whether the event has culminated results in an unusual exchange. The entailment of culmination for perfective achievements, and the ungrammaticality of the sequence of sentence and questioning the culmination, is further emphasized by the speaker's comments (# here is meant to indicate that the sequence is infelicitous, not the sentence itself):[19]

(53) a. na kw'uy kwa John
RL die DET John
'John died'

[19] In these questions, I have used different predicates that the ones used in the sentences in the (a) examples; that is, rather than asking 'Is John still dying' or 'Is John still finding money'; although I argue that these sentences still test whether or not the final point of achievements are entailed, it could be the case that these sentences do not test event continuation but culmination cancellation.

b. #na7-xw u wa 7es-k̲w'uy kwa John
RL-still Q IMPERF STAT-die DET John
'Is John still sick?'[20]
Speaker's comments: Not OK as a question about the previous statement; "Why would you ask a question like that if he is already dead?"

(54) a. na mekw'-em ti tala kwa John
RL find-INTR DET money DET John
'John found some money.'

b. #na7-xw u wa yelx̲-t-as ti tala kwa John
RL-still Q IMPERF look.for-TR-3 DET money DET John
'Is John still looking for the money?'
Speaker's comments: Not OK as a question after the previous statement; "Why is he still looking if he found it?"

The fact that these sequences of statements and questions are unusual indicates that perfective achievement predicates entail culmination in the actual world; moreover, entailment of culmination rather than an implicature of culmination is taken as evidence that a predicate, in this case, achievement predicates, have final points.

Some predicates are not clearly members of a particular aspectual class. For example, the predicate *leave* in English seems to behave as an achievement; data from Sk̲wx̲wú7mesh, however, suggests that the predicate that corresponds to 'leave' in Sk̲wx̲wú7mesh (*huyá7*), is not an achievement. The question diagnostic shows that it behaves more like an activity or accomplishment, since the sequence of *huyá7* in the perfective, followed by a question that suggests the event might not yet have culminated, is completely grammatical:

(55) a. na huyá7 lha Mary
RL leave DET Mary
'Mary left.'

b. na7-xw u wa i lha Mary
RL-still Q IMPERF here DET Mary
'Is Mary still here?'

Furthermore, the event culmination can be cancelled without inducing any contradiction, as the data below illustrates:

(56) na huyá7 kw John iw'ayti wa7-xw wa i
RL leave DET John maybe RL-still IMPERF here
'John went away, he might be still here.'[21]

This contrasts with the behaviour of achievement predicates, which suggests that these tests not only help to determine the representation of predicate classes, but they also act as diagnostics for membership in aspectual classes. The consequence of such a proposal is that the English translation of a particular predicate is not necessarily a clear indication of the aspectual class to which it belongs. The types of tests discussed here are helpful in determining these facts.[22]

3.3.3. Sḵwx̱wú7mesh achievements have intrinsic final points

A summary of the generalizations for Sḵwx̱wú7mesh achievements shown in this section is given the table below:

(57) *Achievements: Culmination cancellation and Event Continuation*

	TEST 1 CULMINATION CANCELLATION		TEST 2 EVENT CONTINUATION	
	Conjunctions	**Questions**	**Conjunctions**	**Questions**
Achievements	×	-	×	-

Although the data with questions are not available here, I will assume that the data with conjunctions for both diagnostics is sufficient to generalize. Given that the culmination of achievement predicates is not cancelable, I conclude that the culmination of a perfective achievement is an entailment. The results of the culmination implication test provide evidence that achievement predicates do have inherent final points.

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[20] Kuipers (1967) lists *7es-ḵw'uy* as meaning either 'sick' or 'dead'. In my elicitation, speakers have used both these translations.
[21] It is not clear whether the speaker interprets this as an in-progress event or one that never took place.
[22] H. Davis (p.c.) notes that directed motion verbs are known to be flexible with respect to their aspectual behaviour.

Above I argued that neither activities nor accomplishments have final points in their denotations. To account for this, I proposed that neither predicate has a *final* BECOME event. This remains uncontroversial for activity predicates (when compared to English), but based on what is reported in the literature, could be considered unusual for accomplishment predicates.[23] Sḵwx̱wú7mesh achievement predicates contrast with both accomplishments and activities in the language in that they necessarily culminate, and thus have a culmination entailment. This entailment must be reflected in their representation; thus, I suggest that the representation of Sḵwx̱wú7mesh achievements is the same as English achievements. Rothstein suggests the following template for English achievements, where the event consists only of a BECOME operator:

(58) *Achievements*
λe.(BECOME(P))(e)

This template can account for the Sḵwx̱wú7mesh achievement facts since BECOME is an event of change; it involves the change from one state, $\neg\phi$, to another state, ϕ. Thus, since achievement predicates themselves are BECOME events, I expect that achievements should entail completion – the event is only understood to have occurred once the change has happened. Thus I argue that Sḵwx̱wú7mesh achievements have the same structure as in English.

Combining the representation proposed for achievements with Kratzer's (1998) semantics for the perfective, I account for the culmination entailment since the event time of the BECOME event must occur within the reference time, as shown below:

(59) $\exists e[(\text{BECOME}(P))(e) \wedge \tau(e) \subseteq t]$

The following table summarizes the representation of Sḵwx̱wú7mesh achievements, the fact they have a final point, and the result of the final point tests that show they have an entailment of culmination:

[23] Note that we do not actually know how (un)common this is cross-linguistically.

(60) *Achievements: Final points*

	Representation	Final Point	Culmination
Achievement	λe.(BECOME(P))(e)	✓	Entailment

3.4. Sḵwx̱wú7mesh inchoative states

The final predicate class to examine is inchoative states. This predicate class most closely resembles Sḵwx̱wú7mesh activities in that both predicate types consist of two sub-events, the first of which is an initial BECOME sub-event. The predicates differ in their second sub-event: activities have DO sub-events and inchoative states have simple P sub-events. Given what I have already said for Sḵwx̱wú7mesh activities, Sḵwx̱wú7mesh inchoative states are expected to be the same: no final points. I show in this section that inchoative states have no culmination entailment and will thus argue that inchoative states have no final points in their representation. I have not elicited data for the culmination cancellation diagnostic, and thus I focus on event continuation alone.

3.4.1. Sḵwx̱wú7mesh inchoative states can be continued

A perfective inchoative state can be conjoined with an imperfective clause, without inducing any contradiction; this is illustrated in the example below:

(61) chen t'ayaḵ' ti natlh
1S.SG angry DET morning
i na7-xw chen wa t'a-t'ayaḵ'
CONJ RL-still 1B.SG IMPERF REDUP-angry
'I got mad this morning and I'm still mad.'
✓ Context: I was mad the entire time
✓ Context: I was mad about the same thing

Furthermore, a sentence containing a perfective state can be followed by a question asking whether the state still holds, as illustrated by the sentences below:

(62) a. na t'ayak' lha Mary
RL angry DET Mary'
'Mary got mad.'

b. na7-xw u wa t'a-t'ayak' lha Mary
RL-still Q IMPERF REDUP-angry DET Mary
'Is she still mad?'

Given that Skwxwú7mesh inchoative events can be continued without inducing infelicity, I argue that inchoative states have no culmination and thus no final points.

3.4.2. Inchoative states have no final points

A summary of the generalizations for Skwxwú7mesh inchoative states shown in this section are given the table below:

(63) *Inchoative States: Culmination cancellation and Event Continuation*

	TEST 1 CULMINATION CANCELLATION		TEST 2 EVENT CONTINUATION	
	Conjunctions	**Questions**	**Conjunctions**	**Questions**
Inchoative States	?	?	✓	✓

For Rothstein, states are the most basic event type in English. Their representations consist of P alone, with no operators:

(64) *English States*

$\lambda e.P(e)$

At this stage, this representation alone can capture the fact that Skwxwú7mesh inchoative states lack final points. However, although I have not yet motivated why I include a class of "inchoative states" in my classification of Skwxwú7mesh predicates, I will do so in Chapter Three. The representation of inchoative states is as follows:

(65) *Skwxwú7mesh Inchoative States*

$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$

Thus, although the initial BECOME sub-event is not part of this discussion, what is relevant here is that the representation above for Sḵwx̱wú7mesh inchoative states can also account for the fact that they do not entail culmination and thus have no final points.

The following table summarizes the representation of Sḵwx̱wú7mesh inchoative events, the fact they lack a final point, and the result of the final point tests that show they have no entailment of culmination:

(66) *Inchoative States: Final points*

	Representation	**Final Point**	**Culmination**
Inchoative State	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge$ (BECOME(P))$(e_1) \wedge P(e_2)]$	×	No entailment

3.5. Summary and concluding remarks

The chart below is a summary of all the data regarding culmination cancellation and event continuation for each predicate class that is discussed in this section:

(67) *Summary: Culmination Cancellation and Event Continuation*

	TEST 1 CULMINATION CANCELLATION		TEST 2 EVENT CONTINUATION	
	Conjunctions	**Questions**	**Conjunctions**	**Questions**
Activities	✓	✓	✓	✓
Accomplishments	✓	✓	✓	✓
Achievements	×	-	×	-
Inchoative States	-	-	✓	✓

(×=infelicitous; ✓=felicitous; - =data not yet tested)

These results have led us to the claim that only achievement predicates have final points in their representations as they are the only predicate class that induce infelicitous judgements in these contexts. A summary of the results of the first two diagnostics for final points and an illustration of how these results inform my representations of Sḵwx̱wú7mesh predicates are given in the chart below:

(68) *Summary: Final points*

	Representation	Final Point	Culmination
Activity	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	×	No entailment
Accomplishment	$\lambda e.[\text{DO}(P))(e) \wedge [\forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates } (e') \text{ in } w' \wedge e \text{ causes } e' \text{ in } w']]]]$	×	Implicature
Achievement	$\lambda e.(\text{BECOME}(P))(e)$	✓	Entailment
Inchoative State	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$	×	No entailment

3.5.1. Testing perfectivity vs. testing telicity

These tests have been used by other researchers to argue for a particular meaning of the perfective, not for the presence of final points. For example, Smith (1997) uses culmination cancellation and event continuation as diagnostics for the meaning of the perfective. She argues, for example, that in English, perfective activities are incompatible with assertions of simple continuation and perfective accomplishments are incompatible with assertions of event termination rather than completion; Smith takes these data as evidence that in English, "the perfective imposes an implicit bound", that "the Activity sentence conveys termination" and that the "perfective viewpoint Accomplishment sentences in English semantically convey completion" (p. 68).

Adopting Smith's diagnostic, Wilhelm (2003) argues that in Dëne Sųłiné, completion is entailed for both perfective activities and accomplishments, leading her to propose that the Dëne Sųłiné perfective focuses on a posttime in addition to the entire situation. Koenig and Muansuwan (2000) argue that in Thai, perfective accomplishments are compatible with assertions of culmination cancellation, but they are incompatible with assertions of event continuation. This leads them to call the Thai perfective a "semi-perfective". What all these analyses have in common is the fact that they are arguing that these two tests are a diagnostic for the meaning of the perfective. I argue that these tests are a diagnostic for the presence of final points (see Chapter Four for detailed discussion on the meaning of the perfective in Skwxwú7mesh and cross-linguistically).

3.5.2. Cross-Salish comparison

The acceptability of canceling the culmination of a control transitive marked predicate was first noted by J. Davis (1978) for Comox (another Coast Salish language), and discussed in greater detail in Watanabe (2003) for the same language. The following data illustrate that canceling the culmination of a control-marked transitive predicate is judged grammatical, but the cancellation of a non-control transitive marked predicate is rejected:

(69) *Comox*

a. k'əp-**t**-uł čən ʔiy xʷaʔ k'əp-as
cut-**CTr**-Past 1sg.Indc and Neg cut-3Cnj
'I cut it, but it is not cut.'

b. * k'əp-ə**x**ʷ-an ʔiy xʷaʔ k'əp-as
cut-**NTr**-1sg.Erg and Neg cut-3Cnj
('I cut it, but it is not cut.')

(Watanabe 2003: 205, ex. (18-41a-b)

(70) a. ƛəpxʷ-a-t-as-uł ʔiy xʷaʔ ƛəpxʷ-as
break-lv-CTr-3Erg-Past and Neg Break-3Cnj
'He broke it but it did not break.'

b. * ƛəpxʷ-a-t-as-uł ʔiy xʷaʔ ƛəpxʷ-as
break-NTr-3Erg and Neg Break-3Cnj
('He broke it, but it did not break.')

(Watanabe 2003: 205, ex. (18-42a-b)

Although Watanabe does not provide an analysis of these data, he does suggest that "encoding completion" may be a more important function of the non-control transitivizer than control.

Davis and Matthewson (2001) were the first to show that in St'át'imcets, the culmination of accomplishment predicates can be cancelled without inducing a contradiction, but the culmination of achievements predicates would induce a contradiction:

(71) *St'át'imcets accomplishments*

a. máys-en-lhkanti q'láxan-a,
fix-TR-1SG.SU DET fence-DET

t'u7 cw7ay t'u7 kw-s tsúkw-s-an
but NEG just DET-NOM finish-CAU-1SG.ERG

'I fixed a fence, but I didn't finish.'

b. ts'áqw-an'-lhkan ti n-kíks-a lhkúnsa ku sq'it,
eat-TR-1SG.SU DET 1SG.POSS-cake-DET now DET day

t'u7 qelh-cál-lhkan ku k'wík'wena7 t'u natcw
but save-ACT-1SG.SU DET few until tomorrow

'I ate my cake today, but I saved a little for tomorrow.'

c. k'ul'-ún'-lhkan ti ts'lá7-a,
make-TR-1SG.SU DET basket-DET

t'u7 aoy t'u7 kw tsukw-s
but NEG just DET finish-3POSS

'I made the basket, but it didn't get finished.'

(72) *St'át'imcets achievements*

a. *mays ti q'láxan-a,
get.fixed DET fence-DET

t'u7 aoy t'u7 kw-s ka-máys-ts-a
but NEG just DET-NOM OOC-fix-3POSS-OOC

'The fence got fixed, but it couldn't get fixed.'
Speaker's comments: "Contradiction."

b. *mets ta púkw-a,
get.written DET book-DET

t'u7 aoy t'u7 kw-s tsukw-s
but NEG just DET-NOM finish-3POSS

'The book got written, but it isn't finished.'
Speaker's comments: "Contradiction."

Finally, Kiyota (2004) observes that in Sənčáθən, accomplishments marked with control transitivizers can be continued without inducing contradiction:[24]

(73) *Sənčáθən control-marked accomplishments*

a. ləʔə sən kʷə léʔt tˢə latem
AUX 1.sg D fix-CTR D table

ʔiʔ ʔawa sən šəqnaxʷ
but NEG 1.sg complete-NCTR

'I fixed the table, but I didn't finish it.'

b. čanət sən tˢə sqexəʔ
bury-CTR 1.sg D dog

ʔiʔ ʔawa sən haynaxʷ
but NEG 1.sg finish-NCTR

'I buried the dog but I didn't finish it.'

(Kiyota 2004)

In the following section, I turn to the next two diagnostics that test for final points: (i) the scope of *kilh* 'almost' and (ii) the scope of negation.

4. Diagnosing final points: event cancellation vs. event non-completion

In this section, I explore how the predicate classes under examination behave with respect to the second two tests: (i) the scope of *kilh* 'almost' and (ii) the scope of negation. Based on the data in the remaining sections, I show the following results of these two diagnostics for final points. In particular, I illustrate which readings are induced by these two scope tests. It is these results (along with the results of the two diagnostics discussed in §3) that motivate the following claims with respect to presence of final points in the representation of Skwxwú7mesh predicates:

[24] Kiyota suggests that predicates marked with the *Sənčáθən* non-control transitivizer have culmination entailments as their culmination is not cancelable, though, he admits, his data set is limited.

(74) *Sḵwx̱wú7mesh Final points: Event cancellation vs. Event non-continuation*

	Readings induced by scope tests	Final Point
Activity	Event cancellation	×
Accomplishment	Event cancellation	×
Achievement	Event cancellation	✓
Inchoative state	Event cancellation	×

The chart above illustrates that the two diagnostics induce event cancellation readings only. Although achievements, in contrast with the other classes, are proposed to have final points (and thus the results for this class might be expected to be different), I show in this section that their representation allows only the one reading.

4.1. Test 3: The scope of Sḵwx̱wú7mesh *ḵilh* 'almost'

There are at least three lexical items in Sḵwx̱wú7mesh that correspond to the same meaning as *almost* in English: *ḵilh, chiyay', cha7i* and *cha7lha* (the latter three of which might be morphologically related (P. Jacobs, p.c.)).[25] As *ḵilh* is the lexical item used most often in to translate English *almost* (the other words are glossed in different ways), I use it throughout these data.[26] Morczycki (2002) suggests that English modifiers similar to *almost*, such as *virtually, nearly, damn near, pretty much, not quite, just about*, "occur in the same positions, give rise to the same range of readings and impose similar restrictions on the expressions they modify" (p. 55). Thus, while *ḵilh* may not exactly correspond to English *almost*, it is obviously a member of this class of predicates and is expected to show the same effects. With respect to Sḵwx̱wú7mesh *ḵilh* 'almost', I assume the following:

(75) Sḵwx̱wú7mesh *ḵilh* can modify P, or an operator that takes scope over P; thus the number of readings that *ḵilh* will give rise to is dependent on the structure/complexity of the predicate.

---

[25] Kuipers glosses the lexical item *ḵilh* as 'be almost' or 'come close to'. He glosses *chiyalh* as 'soon' and *chiyay'* as 'a little' or 'to a small degree'.

[26] Preliminary research on Saanich (Masaru Kiyota p.c. to Lisa Matthewson) suggests that different words for *almost* in that language have different interpretations with respect to these types of data. Future research on Sḵwx̱wú7mesh may reveal some interesting differences between the lexical items, perhaps along the lines of the differences between the English lexical items listed by Morczycki (2002).

I will be assuming that each and every predicate (regardless of its structure) must minimally contain P, which represents the idiosyncratic content of a particular lexical item. The ability of *kilh* 'almost' to take scope over this part of a predicate will not differ among predicates; in other words, each and every predicate will minimally have this reading. The intuition is that the reading that results from this scope is the reading where you do something and it is not quite the perfect version of that event. This is the reading where an event takes place, but it is not interpreted by the speaker as having taken place in an idealized way. Examples for each of the predicate classes are given below (other contexts are possible here):

(76) a. John almost sang.
Context: John did sing, but (it was so bad) I would not describe what John did to be singing[27]

b. John almost built a house.
Context: John did build a house, but the structure of it is so poor that I would never live in it

c. John almost reached the summit.
Context: John did reach a summit, but I know there is another higher peak that he never reached

d. John almost got scared.
Context: John did get scared, but all he gave was a little peep, so he probably wasn't really all that scared – when I get scared I scream out loud

While it may be difficult to get these types of readings for some predicates, the null hypothesis is that they are available for each class of predicate since each predicate minimally has P as part of its denotation.[28] I will set aside this reading for each of the

[27] Hotze Rullman (p.c.) suggests that these examples may be of the type that *X V-ed in one sense by not in another*, which might be a metalinguistic use of *almost* (e.g,, He did something that I would almost call 'singing'). As I have not pursued this reading in elicitation, and am setting the reading in (a) aside for the Sḵwx̱wú7mesh data, I leave this issue for further research.

[28] Sevi (1998) proposes a denotation for *almost* like the one given by Rapp and von Stechow but in which *almost* can operate on not just worlds but also intervals or standards of precision, depending on context. I think the notion of "standards of precision" relates to the scope over P readings and while I consider this an important part of the meaning of *almost*, it will not change the analysis here since it will not distinguish between the predicates.

predicate classes and focus on the readings that arise from modification of the other structure of the predicates.[29]

In this section, I will argue that the number of readings that are induced by *k̲ilh* in Sk̲wx̲wú7mesh provide further evidence for the representations I propose:

(77) *Claims: Sk̲wx̲wú7mesh* k̲ilh *'almost'*

	Predicate Representation	**Readings induced by *k̲ilh***
Activity	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	Event Cancellation
Accomplishment	$\lambda e.[\text{DO}(P))(e) \wedge [\forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates } (e') \text{ in } w' \wedge e \text{ causes } e' \text{ in } w']]]]$	Event Cancellation
Achievement	$\lambda e.(\text{BECOME}(P))(e)$	Event Cancellation
Inchoative States	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$	Event Cancellation

The readings should be predicted by the structure of the predicates. I suggest that all predicates minimally have an event cancellation reading where almost takes scope over the entire predicate since there is no sensitivity to a particular structure or operator. In these cases, *k̲ilh* simply cancels the event. However, given that this diagnostic relates to scope, the complexity of the predicate representations (e.g., how many operators or sub-events there are) should dictate how many readings are available. I will show that the other readings that are expected are not distinct readings, but collapse with the event cancellation reading or the scope over P reading. This is particularly relevant with activities and inchoative states, as I show below. In the following sections I examine the results of this diagnostic for each of the predicate classes.

[29] If it were the case that this reading was not available, I would not attribute this to a problem with the template since by definition, each predicate must have the idiosyncratic meaning of the lexical items as part of its denotation. Thus, I would attribute this problem instead to some other pragmatic reason, which I do not want to pursue here.

4.1.1. Skwxwú7mesh activities: *kilh* induces event cancellation only

When modified by *kilh*, activity predicates in Skwxwú7mesh have an event cancellation reading only. This is illustrated by the data below where the context that elicits the event non-completion reading is not appropriate:

(78) a. kilh na lulum lha Linda
almost RL sing DET Linda
'Linda almost/nearly sang.'
✓Context: Linda was going to sing but didn't because she was too embarrassed
×Context: Linda started singing but lost her voice part way and couldn't finish

b. kilh na xik'-int-as ta hem'ten ta push
almost RL scratch-TR-3ERG DET blanket DET cat
'He almost scratched the blanket.'
✓Context: cat changes his mind and decides not to scratch it

c. kilh chen imesh
almost 1S.SG walk
'I nearly walked.'
✓Context: I planned to walk but changed my mind[30]

This is summarized by the chart below:

(79) *Activities: Readings induced by* kilh *'almost'*

	TEST 3 THE SCOPE OF *kilh* 'ALMOST'	
	Event Cancellation	**Event Non-completion**
Activities	✓	×

Skwxwú7mesh activities behave like English activities in these types of clauses – there is no culmination point, thus, there is no possible modification of that culmination point. This suggests that the sentence in (78a) above could be represented as (80b) below where *kilh* takes scope over the entire event:

[30] The speaker volunteers another sentence as a preferred for this context: *kilh chen nam' 7imesh*, which adds the auxiliary *nam'* 'go'.

(80) a. kilh na lulum lha Linda (=78a)

b. **almost** $\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2)$ (BECOME(SING))$(e_1) \wedge$ (DO(SING))$(e_2)]$

This representation suggests that there was almost an event of singing, and thus correctly predicts that the Skwxwú7mesh sentence in (a) is acceptable in the event cancellation context (context 1), but not in the event non-culmination context (context 2). There is another scope possibility in this representation, namely the one where almost takes medial scope over DO, as given below:

(81) $\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2)$ (BECOME(SING))$(e_1) \wedge$ **almost** (DO(SING))$(e_2)]$.

This would suggest either a reading where (i) there is an event in which Linda began to almost sing, or (ii) where Linda began to sing badly. The former does not seem to be distinguishable from the outer reading since in both cases, nothing actually takes place. The latter is indistinguishable from the scope over P reading, which I have argued is available for every predicate. Crucially, what I do not find is a reading where the event begins but does not finish (the event continuation reading), only the event cancellation reading.

The chart below summarizes the available reading for activities modified by *kilh*, which has contributed to the motivation for the representation of Skwxwú7mesh activity predicates:

(82) *Activities: final points*

	Predicate Representation	**Final Point**	**Readings**
Activity	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge$ (BECOME(P))$(e_1) \wedge$ (DO(P))$(e_2)]$	x	Event Cancellation

4.1.2. Skwxwú7mesh accomplishments: *kilh* induces event cancellation only

Like activities, Skwxwú7mesh accomplishments modified by *kilh* yield the event cancellation reading only. This is illustrated by the data below. Speakers often translate the sentence with "started", suggesting that the event cancellation reading is the ONLY reading available for these predicates:

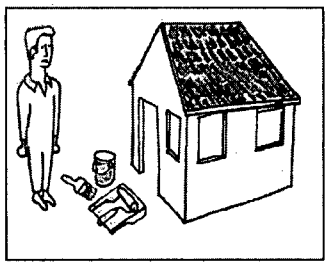
(83) a. kilh na xel'-t-as ta sxuxuyam lha Mary
almost RL write-TR-3ERG DET story DET Mary
'Mary almost wrote a story.'
Speaker's comments: she didn't even start

b. kilh chen mikw'-en ta tetxwem
almost 1S.SG clean-TR DET car
'I nearly started to wash the car.'

c. kilh chen p'ats'-an ta hem'ten
almost 1S.SG sew-TR DET blanket
'I nearly sewed the blanket.'

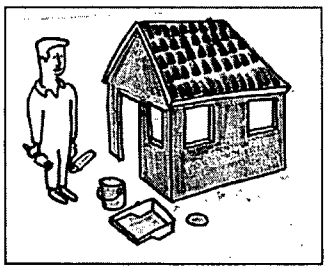
d. kilh na yetl'k'-ant-as ta lam' ta John
almost RL paint-TR-3ERG DET house DET John
'John almost painted the house.'

✓Context A:



×Context B:

×Context C:



Speaker's comments (re: B): "isn't he already painting it?"

I take the speaker's comments for context A above to suggest that for the Skwxwú7mesh sentence to be true of a certain context, no painting may have occurred. Thus, the fact that she describes the picture as though John is *waiting* to paint the house, what is crucial is that he hasn't done any painting. The data in (a-d) above suggests that Skwxwú7mesh accomplishments do not have final points as part of their basic meaning; if they did, I would expect *kilh* to be able to modify them.

Further evidence that the event non-culmination reading is NOT available for Skwxwú7mesh accomplishments is illustrated in the set of sentences given below. The sentence in (a) parallels the sentences above where the event cancellation reading is the available reading. The sentence in (b), on the other hand forces the *context* of an event non-culmination reading using the overt achievement *huy-nexw* 'finish' as the predicate over

which *kilh* takes scope. The only available reading for (b) is that the agent started but did not finish painting the house. When asked if the two sentences are appropriate in the same context, the speaker clearly identifies that the sentence in (a), with the accomplishment, only has the event cancellation reading:

(84) a. kilh chen **yetl'k'-an** ta lam'
almost 1S.SG **paint-TR** DET house
'I almost painted the house.'
Context: didn't start painting

b. kilh chen **huy-nexw**
almost 1S.SG **finish-TR(LC)**
kwi-n-s yetl'k'-an ta lam'
DET-1POSS-NOM paint-TR DET house
'I almost finished painting the house.'
Speaker's comments: [in response to whether these two sentences mean the same thing?] "no, they are different...[in the first one] you hadn't started painting...you said 'almost'"

The results of this diagnostics for the class of Skwxwú7mesh accomplishments is summarized below:

(85) *Accomplishments: Readings induced by* kilh *'almost'*

	TEST 3 THE SCOPE OF *kilh* 'ALMOST'	
	Event Cancellation	**Event Non-completion**
Accomplishments	✓	✗

I propose that, contrary to English, there is no final BECOME operator in the representation of Skwxwú7mesh accomplishments. Instead, it is proposed that Skwxwú7mesh accomplishments have culmination implicatures:

(86) *Skwxwú7mesh Accomplishments*

λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]]

The representation for the sentence in (78d) above, is shown below:

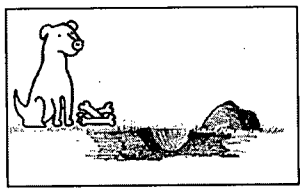
(87) a. kilh na yetl'k'-ant-as ta lam' ta John (=78d)

b. almost ∃e.[DO(PAINT))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [the house gets painted (e') in w' ∧ e causes e' in w']]]]]

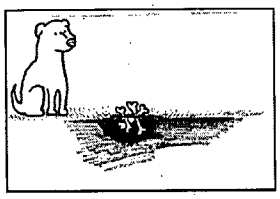
Although speaker's judgements differ for the sentence below, it should be pointed out that sentences containing plural objects might pose a problem for this analysis. For example, the data below show that a sentence containing a plural object might have event non-completion readings with *kilh*:

(88) a. kilh na pen-t-as ta chanat shaw' ta skwemay'
almost RL bury-TR-3ERG DET three bone DET dog
'The dog almost planted three bones.'[31]

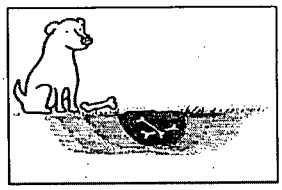
✓ Context A:



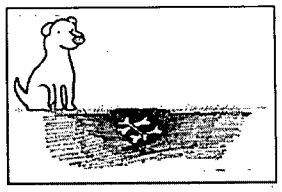
✓ Context B:



✓ Context C:



× Context D:



However, in another elicitation session, the same speaker does not accept the sentence in context C. This seems to be a counter-example, which I cannot account for. I leave this issue for further research.[32]

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[31] The words *pent* is used for both 'bury' and 'plant'.

[32] The data below might also suggest that in fact, the event non-completion reading is unavailable for accomplishments. The speaker comments that the word *i7xw* 'all' is not necessary in the sentence as it is in some sense redundant. I expect it to be redundant here if the sentence without 'all' indicated that none of the bones were buried, which is precisely the event cancellation reading that I expect with accomplishments. If the event non-completion reading were available also, I would not expect the speaker's comments below:

(i) kilh na pen-t-as i7xw ta shew'-shaw' ta skwemay'
almost RL bury-TR-3ERG all DET REDUP-bone DET dog
'The dog almost planted all those bones'
Speaker's comments: "you don't have to use i7xw" ..."didn't even start [burying]"

While the fact that the speaker comments that *i7xw* is not necessary may be a comment on the use of any DP here, the fact that the speaker states that no burying has taken place can be taken as evidence enough that this is only an event cancellation reading.

The chart below summarizes the available reading for accomplishments modified by *kilh*, which has contributed to the motivation for the representation of Skwxwú7mesh accomplishment predicates:

(89) *Accomplishments: final points*

	Predicate Representation	Final Point	Readings
Accomplishment	λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]	×	Event Cancellation

4.1.3. Skwxwú7mesh achievements: *kilh* induces event cancellation only

As I have shown for Skwxwú7mesh activities and accomplishments, achievements modified by *kilh* yield an event cancellation reading. This is illustrated by the data below:[33]

(90) a. kilh chen wi7xw-em
almost 1S.SG fall-INTR
'I nearly fell.'

b. kilh chen huyá7
almost 1S.SG leave
'I nearly went away.'
✓Context: I changed my mind

c. kilh na xelk'-em ta skakl na7 ta yay'wes
almost RL fall-INTR DET baby LOC DET bed
'The baby almost fell off the bed.'

[33] H. Davis (p.c.) suggests that this argument is misleading since these are all what he labels non-instantaneous achievements. However, some of these predicates are felicitous in the progressive and thus can be considered non-instantaneous:

(i) na xe-xelk'-em ta skakl na7 ta yay'wes
RL REDUP-fall-INTR DET baby LOC DET bed
'He's falling off the bed'
Speaker's comments: "he could be rolling off the bed"

d. kilh chen huy-nexw
almost 1S.SG finish-TR(LC)

kwi-n-s yetl'k'-an ta lam'
DET-1POSS-NOM paint-TR DET house

'I almost finished painting the house.'

Unfortunately, it is not easy to test whether the event non-completion reading is available with achievements as a "partway through" context is quite difficult to set up. For example, in the following sequence where the first sentence suggests that the event was not completed and then the second half of the sentence asserts that the event was completed, it is not possible to ascertain whether the reading in the first clause is the event non-completion reading as it does not seem to be distinct from the event cancellation reading:

(91) kilh na kw'ach-nexw-as ta mixalh kwa John...
almost RL look.at-TR(LC)-3ERG DET black.bear DET John

...s-es men kw'ach-nexw-as ta mixalh
NOM-3POSS just look.at-TR(LC)-3ERG DET black.bear

'He almost saw the bear, then he saw the bear.'

The following data was another attempt at setting up the event non-completion context. The second context was meant to suggest that a partial seeing event took place, but it is not clear whether this reading is available, as the speaker volunteers a different sentence:

(92) a. kilh chen kw'ach-nexw ta mixalh
almost 1S.SG see-TR(LC) DET bear
'I nearly saw a bear.'
✓Context: I heard it but I didn't see it
? Context: I saw the bear's backside only

b. men chiyay' kwi-n-s kw'ach-nexw kwi mixalh
just little.bit DET-1POSS-NOM see-TR(LC) DET bear
'I saw just a bit of the bear.'

I will assume, based on these data and my understanding of the near-instantaneous meaning of achievements, that the event cancellation reading is the only reading available for Skwxwú7mesh achievements. As with English achievements, the event cannot be said to

have taken place until the entire event takes place as the event is both an initial point and an final point. Although I am using this test as motivation for the representation of predicates, the facts above are consistent with those observed in the previous section (on culmination). There are no other predicted readings as there is only one operator in the representation of an achievement. The results are summarized below:

(93) *Achievements: Readings induced by* k̲ilh *'almost'*

	TEST 3 THE SCOPE OF *k̲ilh* 'ALMOST'	
	Event Cancellation	**Event Non-completion**
Achievements	✓	×

In §3, I proposed that the representation of Sk̲wx̲wú7mesh achievements were just like English achievements – they consist of a BECOME event only:

(94) *Sk̲wx̲wú7mesh achievements*
λe.(BECOME(P))(e)

The data in this section has reinforced this proposal in that is has shown that the event non-completion reading is unavailable for achievements. The representation below illustrates the scope possibility for *k̲ilh* with achievements where almost takes scope over the entire event:

(95) a. k̲ilh chen wi7xwem (=85a)
b. **almost** ∃e[BECOME(P)(e)]

Thus, while the proposal is that achievements have final points, these final points do not constitute separate sub-events than any other part of the representation. That is, there is only one relevant reading induced by *k̲ilh* for achievements since its representation consists of only one BECOME event.

The chart below summarizes the available reading for achievements modified by *k̲ilh*, which has contributed to the motivation for the representation of Sk̲wx̲wú7mesh accomplishment predicates:

(96) *Achievements: final points*

	Predicate Representation	Final Point	Readings
Achievement	λe.(BECOME(P))(e)	✓	Event Cancellation

4.1.4. Sḵwx̱wú7mesh inchoative states: *ḵilh* induces event cancellation only

The final predicate class under consideration is inchoative states. As with achievements, trying to elicit a reading other than the event cancellation reading is difficult and as such, the data I have here is limited. However, what I think is clear is that the event cancellation reading is available. The following data illustrates this reading:

(97) ḵilh chen t'ayaḵ'
almost 1S.SG angry
'I almost got angry.'
✓Context: John did something annoying and then he immediately apologized, so I didn't get angry

In the following example, I attempted to elicit a reading other than the event cancellation reading. Although the speaker says that the sentence is OK (a), she does not repeat it and instead volunteers another sentence that states "a little bit" overtly (b):

(98) a. ḵilh chen lhchiws
almost 1S.SG tired
?Context: I was almost tired, but I had a coffee and it woke me up

b. men chiyay' kwi-n-s lhchiws
just a.little.bit DET-1POSS-NOM tired
'I'm just a bit tired.'

The set of examples below illustrate the same thing. However, here the elicited sentence in (a) is judged neither felicitous nor infelicitous. Instead, the speaker volunteers the sentence in (b) that includes the word *chiyay'* (I am not sure as to why the speaker translates the sentence in (b) with "slowly" as it seems somewhat different that the volunteered comments; furthermore, here the predicate contains the inchoative marker):

(99) a. ?kilh na ch'i7xw-i7 ta-n yekway'
almost RL dry-INCH DET-1POSS dress

b. chiyay' kwi s-es ch'i7xw-i7 ta-n yekway'
a.little.bit DET NOM-3POSS dry-INCH DET-1POSS dress
'Slowly my dress got dry.'
Speaker's comments: "chiyay' means a little dry"

When asked a follow-up question as to whether *kilh* (as opposed to *chiyay'*) means that the dress was not dry at all, the speaker responds affirmatively. Assuming that these readings are general across other inchoative states, the generalization with respect to inchoative states and the readings induced by *kilh* is given in the table below:

(100) *Inchoative states: Readings induced by* kilh *'almost'*

	TEST 3 THE SCOPE OF *kilh* 'ALMOST'	
	Event Cancellation	**Event Non-completion**
Inchoative States	✓	×

I have proposed that the representation for inchoatives is parallel to the structure for activities in that they contain two sub-events, the first being an initial BECOME event. However, inchoative states differ from activities in that the second sub-event of an activity is a DO event, while the second sub-event of an inchoative state is a plain state. As shown above, the reading induced by *kilh* for inchoative states is an event cancellation reading where *kilh* takes scope over the entire event (b):

(101) a. $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$

b. **almost** $\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(\text{ANGRY}))(e_1) \wedge \text{ANGRY}(e_2)]$

This representation suggests that there was almost an event of being angry, and thus correctly predicts that the Skwxwú7mesh sentence in (97) above is acceptable in the event cancellation context, but the sentence in (98a) is not acceptable in a different context. As with activities,

there is another scope possibility in this representation, namely the one where almost takes scope over the second sub-event, as shown below:

(102) $\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2)$ (BECOME(ANGRY))$(e_1) \wedge$ **almost** (ANGRY)$(e_2)]$.

This reading is the scope over P reading, which I have argued is available for every predicate (since every predicate minimally contains P, its idiosyncratic lexical content). Crucially, what does not surface is a reading where the event begins but does not finish (the event non-culmination reading), only the event cancellation reading.

A summary for inchoative states is given in the chart below. Inchoative states have only event cancellation readings when modified by *kilh*. This is further evidence for the predicate representation proposed in §3 and further evidence that the representation for inchoative states does not include a final point.

(103) *Inchoative states: final points*

	Final Point	**Predicate Representation**	**Readings**
Inchoative States	×	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge$ (BECOME(P))$(e_1) \wedge$ P$(e_2)]$	Event Cancellation

4.1.5. Summary of test 3

A final summary of the results test 3 which showed the readings induced by *kilh* with each of the predicates classes is given below:

(104) *Summary*

	Final Point	**Predicate Representation**	**Readings**
Activity	×	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge$ (BECOME(P))$(e_1) \wedge$ (DO(P))$(e_2)]$	Event Cancellation
Accomplishment	×	$\lambda e.$[DO(P))$(e) \wedge [\forall$w' [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists$e' [culminates (e') in w' $\wedge$ e causes e' in w']]]]	Event Cancellation
Achievement	✓	$\lambda e.$(BECOME(P))(e)	Event Cancellation
Inchoative States	×	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge$ (BECOME(P))$(e_1) \wedge$ P$(e_2)]$	Event Cancellation

A potential alternative explanation must be addressed. Rapp and von Stechow (1999) argue that in German, there is only one inner reading for *fast* 'almost'; they argue that the inner reading for *fast* is always scalar and the resultative position is never occupied by *fast*. This contrasts with what has been observed for *wieder* 'again' in German, where the resultative position can be occupied. It is worth noting that there is variation among speakers/dialects of German and that proposal put forth in Rapp and von Stechow relies on the judgements of the authors only.

Given this claim, I need to say something about Sḵwx̱wú7mesh, namely, why I don't argue here that *ḵilh* is like German *fast* in that it cannot modify the resultant state, instead of what I do propose for Sḵwx̱wú7mesh accomplishment predicates, namely, that there is no final BECOME event to modify. I argue that this analysis would require us to stipulate something for Sḵwx̱wú7mesh that there is no other evidence for.[34] Furthermore, if I were to assume that the structure of Sḵwx̱wú7mesh accomplishments parallels the structure of English-type accomplishments where there is both a DO sub-event and a BECOME sub-event, but that *ḵilh* cannot take scope over the BECOME sub-event, I am still left to explain the facts observed in the previous section, namely, the fact that the culmination of an accomplishment is only an implicature since it can be cancelled. While this may still be possible, I then lose a very interesting (and important) relation between the two sets of facts (that is, *ḵilh* and the culmination implicature).

4.2. Test 4: the scope of Sḵwx̱wú7mesh negation

Gillon (2002) shows that there are two patterns of negation in Sḵwx̱wú7mesh; she notes that "pattern 1 negation reverses the truth value of the clause introduced by *ḵ* and can occur with any predicate type" (p. 8). I argue here that negation, like the *almost* modifier, can modify different sub-events of a given predicate in addition to the entire predicate itself. With this test, I propose that it is possible to diagnose whether or not a predicate has a final point. As with *almost*, if negation takes scope over the entire predicate, we get an event cancellation

[34] I have not yet tested the facts with *ḵiy'át* 'again' in Sḵwx̱wú7mesh, but this might help us make a decision here.

reading. If negation takes scope over a final point, an event non-culmination reading is expected.

In this section, I will argue that the number of readings that are induced by negation in Sḵwx̱wú7mesh provide further evidence for the following representations I propose for predicate classes. In particular, I argue, once again, that only achievements have final points in Sḵwx̱wú7mesh:

(105) *Claims: Sḵwx̱wú7mesh negation*

	Predicate Representation	**Readings induced by negation**
Activity	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	Event cancellation
Accomplishment	$\lambda e.[\text{DO}(P))(e) \wedge [\forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates } (e') \text{ in } w' \wedge e \text{ causes } e' \text{ in } w']]]]$	Event cancellation
Achievement	$\lambda e.(\text{BECOME}(P))(e)$	Event cancellation
Inchoative States	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$	Event cancellation

I initially used this diagnostic to test for further evidence as to whether or not Sḵwx̱wú7mesh accomplishments have final points. As such, I have a limited set of data for the other predicate classes. However, I will use the translations given for the other predicate types as a key to the readings available with negation, leaving further exploration to future research.

4.2.1. Sḵwx̱wú7mesh activites: negation induces event cancellation only

I take the following data from Gillon (2002) to illustrate that Sḵwx̱wú7mesh activities have event cancellation readings under negation:[35]

[35] Gillon uses SBJ for subjunctive marking; for consistency, I have glossed these suffixes CNJ for conjunctive marking.

(106) a. chen sp'utl'em
1S.SG smoke
'I smoked.'

b. haw k-an sp'utl'em
NEG IRR-1CNJ smoke
'I didn't smoke.'

(Gillon 2002: 8, ex. 20)

(107) a. chen ts'its'ap'
1S.SG work
'I worked.'

b. haw k-an ts'its'ap'
NEG IRR-1CNJ work
'I didn't work.'

(Gillon 2002: 1, ex. 2)

4.2.2. Skwxwú7mesh accomplishments: negation induces event cancellation only

Skwxwú7mesh sentences containing accomplishment predicates yield event cancellation readings with negation, but not event non-culmination. This is shown by the data below where the Skwxwú7mesh sentences are judged felicitous in event cancellation contexts but not in event non-culmination contexts:

(108) a. haw k-an xel'-t ta sxwexwiy'am'
NEG IRR-1CNJ write-TR DET story
'I'm not writing a story.'
× Context: you started it but you are not doing it now
Speaker's comments: "I'm not going to write a story"

b. haw k-as i mikw'-ent-as
NEG IRR-3CNJ PART wash-TR-3ERG
ta lhxenptn kwa John
DET floor DET John
'John never washed the floor.'
✓Context: he didn't even start

c. haw k-an i mikw'-en ta lhxenptn
NEG IRR-1CNJ PART wash-TR DET floor
'I didn't wash the floor.'
✓Context: I decided to go to the beach instead

d. haw k-an p'ats'-an ta hem'ten
NEG IRR-1CNJ sew-TR DET blanket
'I'm not sewing the blanket.'
✓ Context: I planned to but I decided not to...I didn't even start it

e. haw k-as i p'ayak-ant-as
NEG IRR-3CNJ PART fix-TR-3ERG
ta tetxwem kwa John
DET car DET John
'John never fixed the car.'
✓Context: he didn't even start
Speaker's comments: "He didn't do it"
× Context: he fixed it partway but never finished

f. haw k-an yetl'k'-an ta lam'
NEG IRR-1CNJ paint-TR DET house
'I'm not going to paint this house.'
× Context: I started but I didn't finish

To get the part-way (event non-culmination) reading where the event has begun but is not yet complete, speakers volunteer a different sentence where the predicate "finish" is overtly expressed. This is shown by the volunteered sentences below:

(109) a. haw k-as i huy-nexw-as
NEG SBJ-3CNJ PART finish-TR(LC)-3ERG
kwi s-es wa p'ayak-ant-as ta tetxwem
DET NOM-3POSS IMPERF fix-TR-3ERG DET car
'I didn't finish fixing the car.'[36]

b. haw ek' k-an huy-nexw ta lam'
NEG FUT SBJ-1CNJ finish-TR(LC) DET house
'I won't finish it.'
✓Context: I started to paint the house but I quit half-way through

These data illustrate that the event non-completion reading is unavailable for Skwxwú7mesh accomplishments, providing further evidence that accomplishment predicates do not have final BECOME events over which negation can take scope.

[36] No translation was offered by the speaker; I assume this to be the appropriate gloss.

4.2.3. Skwxwú7mesh achievements: negation induces event cancellation only

As with activities, I take the data below to show that negation induces the event cancellation reading with achievements:

(110) a. haw k-as i tl'ik
NEG IRR-3ERG PART arrive
'S/he hasn't arrived.'

b. haw k-an tl'xwenk
NEG IRR-1CNJ win
'I did not win.'

c. haw k-an i mekw'-em ti tala
NEG IRR-1CNJ PART find-INTR DET money
'I didn't find the money.'

d. haw k-an i kw'ach-nexw
NEG IRR-1CNJ PART see-TR(LC)
'I didn't see him.'

e. haw k-as i huy-nexw-as
NEG IRR-3CNJ PART finish-TR(LC)-3ERG
'He didn't finish his project.'

The crucial data that are missing here are examples where the event non-culmination context is tested. In other words, I still need to test whether or not these sentences are felicitous in contexts where the events begin but never (or not yet) finish. In (a), the relevant context would be *she began to arrive, but did not yet get there.* In (b), this would be *I started to win, but ended up not winning*. I showed in §3 that Skwxwú7mesh achievements cannot be continued or incomplete in any way; thus, although I have not yet elicited the relevant negative data for negation, I expect that it is not possible to be able to utter a sentence under negation in Skwxwú7mesh where the achievement had begun but not finished. I argue that negation can provide further evidence as to its representation. Since it seems that negation induces only event cancellation readings with achievements, rather than an even non-

completion reading, I propose that there is only one possible position for negation in the representation for achievements.

4.2.4. Skwxwú7mesh inchoative states: negation induces event cancellation only

Finally, inchoative states also occur under negation and have the same results as all three previous predicate classes, namely, event cancellation readings:

(111) a. haw k-an i t'ayak'
NEG IRR-1CNJ PART angry
'I didn't get mad.'

b. haw k-an i lhchiws ti stsi7s
NEG IRR-1CNJ PART tired DET today
I didn't get tired today.'

c. haw k-as na kw'ay' ta mex-mixalh
NEG IRR-3CNJ RL hungry DET RED-bear
na7 ta tem-t'ikw
LOC DET time-cold
'Bears don't get hungry in the wintertime.'

In the data above, the predicates are translated as inchoatives, and not statives. For example, in (a), the speaker translates the sentence as 'I didn't get mad' and not 'I am not mad'. I take these data as a clue that these readings involve negation taking scope over the entire event and not just the second sub-event, which is the plain state itself. However, as with achievements above and activities before that, I am missing crucial data here, namely contexts where non-culmination readings are tested.

4.2.5. Summary of test 4

A summary of the negation facts for each of the predicate classes are given in the chart below[37]:

[37] Davis (2005) argues that negation is a propositional operator in Salish, and thus it will always have widest scope over the predicate in an embedded clause. As a result, he states that only one reading for negation is expected. This suggests that the results from the negation diagnostic are only accidentally parallel to the *almost* data.

(112) *Summary: the scope of negation*

	TEST 4 THE SCOPE OF NEGATION	
	Event Cancellation	**Event Non-completion**
Activities	✓	×
Accomplishments	✓	×
Achievements	✓	×
Inchoative States	✓	×

These generalizations provide evidence for the following predicate representations and claims about the presence of final points in Sḵwx̱wú7mesh predicates.

(113) *Claims: Sḵwx̱wú7mesh negation*

	Predicate Representation	**Readings induced by negation**
Activity	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	Event Cancellation
Accomplishment	$\lambda e.[\text{DO}(P))(e) \wedge [\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists e'$ [culminates (e') in w' $\wedge$ e causes e' in w']]]]	Event Cancellation
Achievement	$\lambda e.(\text{BECOME}(P))(e)$	Event Cancellation
Inchoative States	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$	Event Cancellation

4.3. Summary: event cancellation vs. event non-completion

In this section, I have shown the results of two diagnostics that test the presence of final points in the representations of Sḵwx̱wú7mesh predicates: the scope of *kilh* 'almost' and the scope of negation. Although there are still crucial data missing, I summarize the data presented in this section as follows:

(114) *Sḵwx̱wú7mesh Final points: Event cancellation vs. Event non-continuation*

	READINGS INDUCED BY SCOPE TESTS				Final Point
	Test 3: The scope of kilh		*Test 4: The scope of negation*		
	Event Cancellation	Event non-completion	Event Cancellation	Event non-completion	
Activity	✓	×	✓	×	×
Accomplishment	✓	×	✓	×	×
Achievement	✓	×	✓	×	✓
Inchoative state	✓	×	✓	×	×

I have argued that the readings (or lack thereof) induced by these diagnostics provide evidence for claim that achievements are the only predicate class in Sḵwx̱wú7mesh that have final points. This claim and the proposed predicate representations are summarized again below:

(115) *Final Points*

	Predicate Representation	Final Point
Activity	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	×
Accomplishment	$\lambda e.[\text{DO}(P)](e) \wedge [\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists e'$ [culminates (e') in w' $\wedge$ e causes e' in w']]]]	×
Achievement	$\lambda e.(\text{BECOME}(P))(e)$	✓
Inchoative States	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$	×

5. Intrinsic final points vs. pragmatically-conditioned final points

In this chapter, I have argued that on the basis of the results of four tests, achievements are the only predicate class in Sḵwx̱wú7mesh that have final points as part of their representation. These final points, I argue, are represented as final BECOME events. Final points, however, can be pragmatically conditioned rather than intrinsic to the predicate. In this section, I will show that contexts where there is no overt culmination cancellation (such as, but not limited to, out of the blue contexts) trigger culmination in Sḵwx̱wú7mesh accomplishment predicates.

5.1. Pragmatically-conditioned final points in out-of-the-blue contexts

5.1.1. Sḵwx̱wú7mesh activities: past or present

In out-of-the-blue sentences, Sḵwx̱wú7mesh perfective activities are translated in the past perfective or present progressive:[38]

(116) a. chen x̱ay-m
1S.SG laugh-INTR
(i) 'I laughed.'
(ii) 'I am laughing.'

b. chen itut
1 S.SG sleep
(i) 'I slept.'
(ii) 'I am sleeping.'

c. na lulum lha slhanay'
RL sing DET woman
(i) 'The woman sang.'
(ii) 'The woman is singing.'

d. na imesh ta John
RL walk DET John
(i) 'John walked.'
(ii) 'John is walking.'

In Chapter Four, I show that the perfective is not overtly marked in Sḵwx̱wú7mesh, and argue that there is no dedicated perfective morpheme. A progressive or imperfective activity (marked by a progressive or imperfective morpheme) sentence is always translated with the English progressive. When a speaker is given both a perfective sentence and a sentence marked by an imperfective morpheme, speakers offer a past perfective English translation for the perfective sentence. This is illustrated in the data below where the perfective sentence in

[38] I assume that the present readings available are perfective. I suggest that they are translated as English present progressives, because there is no simple present in English (see Bar-el 1998 for discussion on Sḵwx̱wú7mesh and Brinton 1988 for discussion on the notion of *present perfective*). The addition of an adverbial referring to a past time (e.g., *kwi chel'aḵlh* 'yesterday') yields a simple past translation.

(a) yields a past non-progressive reading while the imperfective sentence in (b), marked by the addition of *wa* and CV (bolded), yields an in-progress (imperfective) reading:[39]

(117) a.

na	**shupn**	lha	Carrie	
RL	**whistle**	DET	Carrie	
kwi	s-es	tin-tin	ta	new'tstn
DET	NOM-3POSS	REDUP-ring	DET	phone

'Carrie whistled when the phone rang.'
×Context: Carrie was whistling
Speaker's comments: "you said whistled ...shushpn [reduplicated form] is for whistling"

b.

na	**wa**	shu-shpn	lha	Carrie
RL	**IMPERF**	REDUP-whistle	DET	Carrie

'Carrie's whistling'

5.1.2. Skwxwú7mesh accomplishments: past culminated

Accomplishments yield past culminated events in out of the blue contexts. Speaker's comments such as those given in (21a, b, h) emphasize that the event is interpreted as having culminated:

(118) a.

na	xel'-t-as	ta	sxwexwiy'am'	lha	Mary
RL	write-TR-3ERG	DET	story	DET	Mary

'Mary wrote a story.'
Speaker's comments: "she wrote it...she finished"

b.

chen	p'ats'-an	ta	hem'ten
1S.SG	sew-TR	DET	blanket

'I sewed the blanket.'

c.

chen	p'ayak-an	ta	tetxwem
1S.SG	fix-TR	DET	car

'I fixed the car.'
Speaker's comments: "You already fixed it"

---

[39] H. Davis (p.c.) suggests that not all Salish activities are alike; for example, the word in St'át'imcets for 'work' is consistently translated in the past in out of the blue contexts, unlike many other activity predicates. While I agree that this might be the case in Skwxwú7mesh as well, my fieldwork has not shown this. This would require further exploration.

d. na kw'el-ent-as ta smeyts kwa John
RL cook-TR-3ERG DET meat DET John
'John cooked the meat.'

e. na pen-t-as ta shaw' ta skwemay'
RL bury-TR-3ERG DET bone DET dog
'The dog buried the bones.'

f. chen xewtl'-an ta xel'ten
1S.SG break-TR DET pencil
'I broke the pencil.'

g. chen lhen'-t ta basket
1 S.SG weave-TR DET basket
'I wove a basket.'

h. chen ilhen kwi shawik
1S.SG eat DET carrot
'I ate a carrot.'
Speaker's comments: does it mean that the carrot is finished? "yes"

5.1.3. Skwxwú7mesh achievements: past culminated

The following data show that perfective achievements yield past, culminated readings only. The speaker's comments in (a) reinforce the fact that the speaker perceives the event as completed:

(119) a. tl'ik ta John
arrive DET John
'John got here.'/'John arrived.'
Speaker's comments: "can't mean he hasn't arrived yet"

b. chen tl'exwénk
1S.SG win
'I won.'

c. chen wi7xw-em
1S.SG fall-INTR
'I fell [from above].'

d. na kw'uy kwetsi swi7ka
RL die DEM man
'The man died.'

e. chen mekw'm kwetsi smant
1S.SG find DEM rock
'I found a rock.'

f. chen tsixw ta ayalhkw
1S.SG reach DET beach
'I reached the beach.'

g. na xwey ta swi7ka
RL appear DET man
'The man appeared.'

h. na xelk'-em ta skakl na7/tiná7 ta yay'wes
RL fall-INTR DET baby LOC/FROM DET bed
'The baby fell off the bed.'

5.1.4. Skwxwú7mesh inchoative states: past inchoative or present stative

Finally, in out of the blue contexts, inchoative states yield past inchoative translations as well as present stative translations:

(120) a. chen t'ayak'
1S.SG angry
(i) 'I got angry/upset.'
(ii) 'I am angry.'

b. chen kw'ay'
1S.SG hungry
(i) 'I got hungry.'
(ii) 'I am hungry.'

c. chen lhchiws
1S.SG tired
(i) 'I got tired.'
(ii) 'I am tired.'

d. na katl'
RL cloudy
'it got cloudy.'

e. chen ts'ulh
1S.SG cold
(i) 'I'm cold.'
(ii) 'I got cold.'

5.1.5. Summary

These results are summarized in the table below:

(121) *Out of the Blue Contexts in Sḵwx̱wú7mesh*

Predicate Class	Out of the Blue Reading
Activities	Past/Present
Accomplishments	Past Culminated
Achievements	Past Culminated
Inchoative States	Past(inchoative)/Present stative

In this chapter I have proposed that only achievements have intrinsic final points in their representations. The data above show that accomplishments have pragmatically conditioned final points. That is, without any evidence to the contrary, a perfective accomplishment is interpreted as a culminated event. Although Sḵwx̱wú7mesh activities and inchoative states have past readings, neither of them represent culminations of the entire event.

5.2. Deriving the Sḵwx̱wú7mesh accomplishment culmination implication[40]

In this chapter I have argued that Sḵwx̱wú7mesh accomplishments do not have intrinsic final points. However, as I show in the previous section, Sḵwx̱wú7mesh accomplishments are interpreted as culminated events in out of the blue contexts. In this section, I argue that, following Matthewson (2004) who claims that St'át'imcets accomplishments have culmination implicatures, not entailments, Sḵwx̱wú7mesh accomplishments have culmination implicatures.

In out of the blue contexts, accomplishments are translated as past culminated events, as shown again below:

[40] The analysis presented in this section is due to Matthewson (2004), based on St'át'imcets data, and was then extended to Sḵwx̱wú7mesh in Bar-el, Davis and Matthewson (2004).

(122) a. na **xel'-t-as** ta sxwexwiy'am' lha Mary
RL **write-TR-3ERG** DET story DET Mary
'Mary wrote a story.'
Speaker's comments: "She wrote it...she finished."

b. chen **p'ayak-an** ta tetxwem
1S.SG **fix-TR** DET car
'I fixed the car.'
Speaker's comments: [in response to whether it can mean 'started to fix]"You already fixed it."

c. na **kw'el-ent-as** ta smeyts kwa John
RL **cook-TR-3ERG** DET meat DET John
'John cooked the meat.'

However, these culminations can be denied without inducing any contradictions or infelicity. This is shown once again below where the culmination can be cancelled (a), the event can be continued (b) and the culmination can be questioned (c):

(123) a. na **p'ayak-ant-as** ta John ta snexwilh-s
RL **heal-TR-3ERG** DET John DET canoe-3POSS
welh haw k-as i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR-3ERG
'He fixed his canoe but he didn't finish (fixing) it.' *(volunteered gloss)*

b. chen **yetl'k'-an** ta lam' i na7-xw chen wa yetl'k'-an
1S.SG **paint-TR** DET house PART RL-still 1S.SG IMPERF paint-TR
'I painted the house and I'm still painting it.' *(volunteered gloss)*

c. A: na **cha7-st-as** kwi kw'axwa7 lha Mary
RL **make-CAUS-3ERG** DET box DET Mary
'Mary made a box.'

B: na u huy-nexw-as
RL Q finish-TR-3ERG
'Did she finish it?'

Crucially, in each of the above examples, an accomplishment is formed by the suffixation of a transitiver, which in each of these cases, is a control transitivizer, which indicates that the agent of the event has complete control over the event denoted by the verb (Thompson 1979,

Davis and Demirdache 2000, among others).[41]

To account for the difference between English and Sḵwx̱wú7mesh where accomplishments in the former language entail culmination but in the latter only implicate culmination, a number of assumptions must be made. First, following Davis (1997) and Davis and Demirdache (2000), who argue that all roots in Salish are unaccusatives based on the fact that they have single internal arguments, I assume that Sḵwx̱wú7mesh accomplishments are derived from unaccusatives (I am refraining from assuming that ALL roots are unaccusatives in Sḵwx̱wú7mesh, but restricting myself to accomplishments, that is, transitive marked VPs). The status of Sḵwx̱wú7mesh roots as unaccusatives can be seen in examples like the following where the sentences are interpreted with only one internal argument:[42]

(124) a. na **ḵw'el** ta smeyts
RL **get.cooked** DET meat
'The meat is cooked / got cooked.'

b. na **yetl'ḵ'** ta lam'
RL **get.painted** DET house
'The house got painted.'

c. na **p'ayaḵ** ta snexwilh
RL **get.fixed** DET canoe
'The canoe got fixed.'

d. na **xwekw** tay'
RL **use** DEM
'That was used.'

In general these sentences are interpreted in the past; however, as can be seen in the

[41] This discussion is confined to the prototypical control transitivizers *-Vn/-Vt* in Sḵwx̱wú7mesh, glossed TR for 'transitive'. There are other transitivizers which could be classified as 'control' (see Jacobs 1999). As for the contrast between *-Vn* and *–Vt* in Sḵwx̱wú7mesh, Kuipers (1967:69) suggests that there may at some point have been a distinction, but it is not productive and that they "may be regarded as non-automatic allomorphs of one transitivizer".

[42] Bare roots are often difficult to elicit and obtain judgements on in Sḵwx̱wú7mesh (H. Davis (p.c.) states that the same is true for St'át'imcets, but that speakers have a lot of practice with them). Speakers prefer transitive versions of the predicates and to refer to an agent, even if the agent is not known. An additional piece of evidence is missing here, that is, an example showing that an oblique external argument is impossible. I will have to leave this for future research.

translation for (a) above, a resultant state reading is also available for (at least some of) these predicates.[43]

These unaccusatives are achievements, and like Skwxwú7mesh achievements, they have culmination entailments. Thus, canceling the culmination of a bare root results in a contradiction. This is seen in the examples below:

(125) a. * na **kw'el** ta smeyts
RL **get.cooked** DET meat
i na7-xw wa kw'el-t-as
CONJ RL-still IMPERF cook-TR-3ERG
Speaker's comments: "You're saying it's cooked but they're still cooking it!...Why would you keep on cooking it? It's cooked!...Unless she thought it wasn't quite cooked, then she might put it back in the oven."

b. * na **yetl'k'** ta lam' i na7-xw wa yetl'k'-ant-as
RL **get.painted** DET house CONJ RL-still IMPERF paint-TR-3ERG
'The house got painted and it's still being painted.'
Speaker's comments: [laughs] "no good"

The denotation of a bare root is as follows:

(126) a. na **yetl'k'** ta lam'
RL **get.painted** DET house
'The house got painted.' *(volunteered gloss)*

b. $[[\textbf{na yetl'k' ta lam'}\ ]]^{w} = \lambda e$ [the house gets painted in w (e)]

To summarize, the following are the facts to be accounted for:

(i) control-marked transitive VPs are derived from unaccusative roots by the suffixation of a control transitive (*-Vt* or *–Vn*)

(ii) unaccusative roots have culmination entailments

(iii) control-marked transitive VPs have culmination implicatures

[43] It may not be the case that this is true for all predicates of this type.

The control transitivizer not only introduces the agent's control over the event (and possibly also the agent itself, but I will set this aside for now), but must also be responsible for removing the culmination entailment, the requirement that the event culminate in the actual world, which is part of the meaning of the achievement from which the accomplishment is derived.

To account for this, I draw on the modalized approach often used for the progressive as in Dowty 1977. Take the following example of the English progressive in (a) and its truth conditions in (b):

(127) a. Mary is building a house.

b. *Mary is building a house* is true in a world *w* at an interval *I* iff in every inertia world *w'* for *w* at *I* this interval *I* is a subinterval of a larger interval where *Mary build a house* is true.

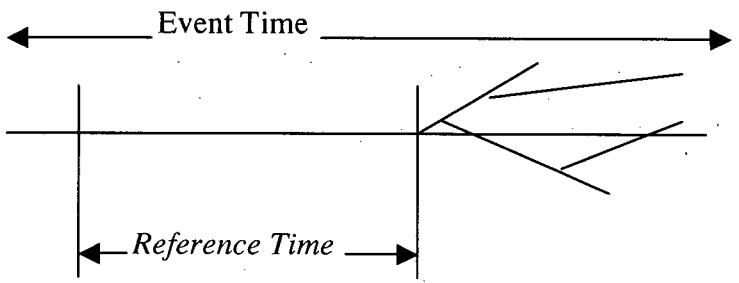
Drawing on Lewis's notion of the "natural course of events", Dowty defines inertia worlds as follows:

(128) *Inertia Worlds (Dowty 1979: 148)*

Worlds which are exactly like the given world up to the time in question and in which the future course of events after this time develops in ways most compatible with the past course of events.

A schematic illustration is given below:

(129)



Extending the notion of inertia worlds to the control transitive in Sḵwx̱wú7mesh (and Salish in general), I propose the following denotation for the control transitivizer:

(130) [[CONTROL.TRANS]]^{w} = $\lambda f \in D_{<l,st>}$ [λe [e is controlled by its agent in w $\wedge$ $\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists e'$ [f (e')(w') $\wedge$ e causes e' in w']]]]

This suggests that the control transitivizer takes a culminating verbal root (that is, an achievement with a requirement that it culminate in the actual world), and says that (i) the event is controlled by its agent and (ii) in all inertia worlds, the event leads to the culmination expressed by the root. Applied to a Skwxwú7mesh example, this is seen below:

(131) a.

chen	**yetl'k'-an**	ta	lam'
1S.SG	**paint-TR**	DET	house

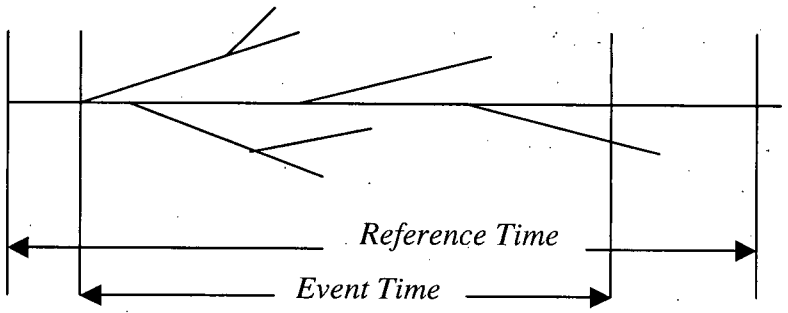
'I painted the house.'

b. [[**chen yetl'k'-an ta lam'**]]^{w} = λx λe [x is the agent of e $\wedge$ e is controlled by x in w $\wedge$ [$\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists e'$ [the house gets painted in w' (e') $\wedge$ e causes e' in w']]]]]

What (131) mean is that 'I was the agent that was in control of an event which in all inertia worlds causes the house to get painted.'

The analysis for perfective Salish accomplishments differs from Dowty's analysis of the English progressive because this analysis allows the inertia worlds to branch off at the *beginning* of the event, rather than at the end of the reference time. This is schematically illustrated below:

(132)



Thus, Skwxwú7mesh perfective accomplishments have different truth conditions from English progressives. In the English sentence *I was fixing a fence,* the reference time is contained within the event time, and the event cannot culminate in the actual world within the reference time. In the case of the Skwxwú7mesh perfective accomplishment, the event time is inside the reference time (as with any perfective), thus the event may or may not

culminate in the actual world within the reference time.

This accounts for the fact that Sḵwx̱wú7mesh accomplishments do not entail culmination; however, recall that Sḵwx̱wú7mesh accomplishments do culminate in out of the blue contexts and thus have been argued to have a culmination implicature which still needs to be accounted for. I argue here that this implicature of culmination arises because in all inertia worlds, the event culminates; in the absence of other information, the hearer assumes that the 'normal' course of events (which is culmination in the case of accomplishments) takes place.

Given that I draw on the modalized analysis of the English progressive in order to account for the Sḵwx̱wú7mesh accomplishment facts, a question that arises is why the English progressive (which also involves inertia worlds) does NOT implicate culmination. That is, the sentence in (a) below does not implicate (b):

(133) a. John was building a house.

b. John built a house.

	John was building a house	**John built a house**
Perfective/Imperfective	Imperfective	Perfective
Entailment of Culmination	×	✓
Implication of Culmination	✓	N/A

In English there is a contrasting form (the perfective) which entails culmination, namely (b) above; thus, to express culmination, (b) will always be a better way of doing so. As a result, the progressive in (a) lacks a culmination implicature.

Preliminary data show that there are perfective transitive accomplishments which entail culmination in Sḵwx̱wú7mesh; these take a non-control/limited-control transitivizer. At this point it is not clear to me what the status of these predicates is with respect to aspectual distinctions. What I will commit myself to now is that it holds in Sḵwx̱wú7mesh that for any agent in control of an event, there is no contrasting perfective control marked form that entails culmination.

Turning now to the tense effect that is observed with Sḵwx̱wú7mesh

accomplishments, recall that perfective accomplishments are usually translated in the past:

(134) a. na **x̲el'-t-as** ta sx̲wex̲wiy'am' lha Mary
RL **write-TR-3ERG** DET story DET Mary
'Mary wrote a story.'
Speaker's comments: "She wrote it...she finished."

b. chen **p'aya**k̲**-an** ta tetxwem
1S.SG **fix-TR** DET car
'I fixed the car.'
Speaker's comments: [in response to whether it can mean 'started to fix]"You already fixed it."

c. na **k̲w'el-ent-as** ta smeyts kwa John
RL **cook-TR-3ERG** DET meat DET John
'John cooked the meat.'

The question that arises is why is this the case given that the truth conditions that have been assigned to the control transitive do not force a past event time. This issue can be dealt with in the same way as the English progressive.

In Sk̲wx̲wú7mesh, there is a contrasting form (containing the imperfective morpheme) which is a better way to express a present progressive interpretation (since it explicitly makes sure the event is not completed within the reference time). A minimal pair is given below (imperfective sentences are discussed in further detail in Chapter Five):

(135) a. chen **lhen'-t** ta hem'ten
1S.SG **weave-TR** DET blanket
'I made a blanket.'

b. chen **wa** **lhen'-t** ta hem'ten
1S.SG **IMPERF** **weave-TR** DET blanket
'I'm making the blanket.'

Therefore, the preferred interpretation of a perfective accomplishment sentence will be in the past. Note, however, that, as predicted, present progressive translations of perfective accomplishments are sometimes available. This can be seen in the following dialogue where the perfective form of the accomplishment predicate is used, but the context has forced an imperfective interpretation of the sentence. While in some cases speakers will change the

sentence to include the imperfective morpheme when repeated, speakers will translate the bolded predicate as imperfective:

(136) A: na encha lha Carrie
RL where DET Carrie
'Where is Carrie?'

B: na7 ta lam'-s
LOC DET house-3POSS
'At her house.'

A: na wa chanem lha Carrie
RL IMPERF do.what DET Carrie
'What is she doing?'

B: na **p'ats'-ant-as** ta yek̲way'-s
RL **sew-TR-3ERG** DET dress-3POSS
'She's sewing her own dress.' *(volunteered gloss)*

6. Conclusion

In this chapter I have motivated the absence/presence of intrinsic final points in the representations of Sk̲wx̲wú7mesh predicates on the basis of the results of four diagnostics: (i) culmination cancellation, (ii) event continuation (iii) the scope of *k̲ilh* 'almost' and (iv) the scope of negation. I argue that these tests show that activities, accomplishments and inchoative states do not have intrinsic final points, while achievements have intrinsic final points. These results and claims are summarized in the charts below:

(137) *Culmination Cancellation and Event Continuation*

	TEST 1 CULMINATION CANCELLATION		TEST 2 EVENT CONTINUATION		Final Point
	Conjunctions	Questions	Conjunctions	Questions	
Activity	✓	✓	✓	✓	×
Accomplishment	✓	✓	✓	✓	×
Achievement	×	-	×	-	✓
Inchoative State	-	-	✓	✓	×

(×=infelicitous; ✓=felicitous; - =data not yet tested)

(138) *Event cancellation vs. Event non-continuation*

	READINGS INDUCED BY SCOPE TESTS				Final Point
	Test 3: The scope of kilh		*Test 4: The scope of negation*		
	Event Cancellation	**Event non-completion**	**Event Cancellation**	**Event non-completion**	
Activity	✓	×	✓	×	×
Accomplishment	✓	×	✓	×	×
Achievement	✓	×	✓	×	✓
Inchoative state	✓	×	✓	×	×

(139) *Summary: Initial Points*

	Predicate Representation	Final Point
Activity	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge (DO(P))(e_2)]$	×
Accomplishment	$\lambda e.[DO(P))(e) \wedge [\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists e'$ [culminates (e') in w' $\wedge$ e causes e' in w']]]]	×
Achievement	$\lambda e.(BECOME(P))(e)$	✓
Inchoative States	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge P(e_2)]$	×

I also have shown that judgements of sentences that lack any overt cancellation indicate that accomplishments in Skwxwú7mesh, while they lack intrinsic final points, have culmination implicatures. This implicature arises with control marked transitivizers and is derived by the addition of modality in the representation of Skwxwú7mesh accomplishments.

> *Events take place in a temporally ordered fashion and can, in many cases, be segmented into a series of smaller temporal periods...an ONSET, a NUCLEUS, and a CODA. Each of these can be individually described, and each can be viewed in relation to some other segment; it is sometimes difficult to draw a strict line of demarcation between them, hence the slippery nature of the verbs that characterize these different time periods.*
>
> (Freed 1979: 30)

1. On the relevance of initial points

Initial points are rarely, if ever, addressed in discussions of aspectual predicate classes. Although initial points may be implicitly assumed, the focus in the literature on the classification of predicates according to their aspectual status has been on their final points. As noted in Chapter One, Smith (1997) suggests that "the initial endpoints of events are natural, since they represent a change from a state of rest" (p. 22). She proposes that activities and accomplishments have initial points, contrasting with states that do not; the temporal schemata informally representing initial points is illustrated below[1] (initial points are in boldface; see Chapter One for further discussion):

(1)	a.	Activities:	**I**.....F_{Arb}
	b.	Accomplishments	**I**.....$F_{Nat\ R}$
	c.	Semelfactives	E
	d.	Achievements	.....E_R.....
	e.	States	(I)_____(F)

(p. 23-32)

As in Chapter Two where I use the term "final points" to refer to final BECOME events in the representation of a predicate, in this chapter, I use the term "initial points" to

[1] It is not clear whether Smith assumes semelfactives and achievements (both events) to have initial points; this would be dependent on her definition of initial points.

refer to initial BECOME events.[2] Once again, the term "intrinsic" here is used to refer to the claim that final points are represented in the templates of aspectual classes, not that final points are necessarily primitive.

1.1. The presence of intrinsic initial points in Sḵwx̱wú7mesh predicates

In the same way that a final point is represented as a final BECOME event in the representation of a predicate, I suggest that an initial point corresponds to an initial change of state, represented by an initial BECOME event in the denotation of a given predicate. On the basis of two diagnostics: (i) the readings induced by punctual clauses/adverbials and (ii) the readings induced by the auxiliary *mi*, I propose the following classification of final points in the meaning of Sḵwx̱wú7mesh predicates (initial points are in boldface):

(2) *Sḵwx̱wú7mesh predicates: Initial points*

	Representation	**Initial Point**
Activity *swim, rest, laugh*	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1)} \wedge (DO(P))(e_2)]$	✓
Accomplishment *write a book, fix the car*	$\lambda e.[DO(P))(e) \wedge [\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]	×
Achievement *win, arrive, find a rock*	$\lambda e.\mathbf{(BECOME(P))(e)}$	✓
Inchoative *(get) angry, (get) cloudy*	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1)} \wedge P(e_2)]$	✓

Rothstein does not address initial points in her discussion of the representation of English predicates. Comparing predicates in the two languages, it is activities and inchoative states that are the most contrastive with respect to initial points. That is, initial points are not represented in either class in English, but are proposed to be in the representation of the parallel Sḵwx̱wú7mesh predicates.

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[2] Kiyota (2005) proposes a slightly different approach to analyzing initial points by using a BEGIN operator. His template for Sənčáθən activities is as follows:

(i) $\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (BEGIN(P))(e_1) \wedge (DO(P))(e) = e_2]$

(3) *Activities: English vs. Sḵwx̱wú7mesh*

a. *English*
$\lambda e.(DO(P))(e)$

b. *Sḵwx̱wú7mesh*
$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge (DO(P))(e_2)]$

(4) *(Inchoative) States: English vs. Sḵwx̱wú7mesh*

a. *English*
$\lambda e.P(e)$

b. *Sḵwx̱wú7mesh*
$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge P(e_2)]$

As the representations above show, English activities and states have a simple structure, while the parallel classes in Sḵwx̱wú7mesh are more complex. Although the second sub-event of each of the Sḵwx̱wú7mesh predicates are the same as their simpler English counterparts, the crucial difference is the presence of an initial point, represented as an initial BECOME sub-event.

1.2. Outline of this chapter

This chapter is organized as follows. I begin with an overview of and motivation for the two diagnostics used in this chapter to test for the presence of intrinsic initial points in Sḵwx̱wú7mesh (§2). I then show the results of the first diagnostic (the effect of punctual clauses and adverbials) by providing the relevant data for each predicate class and argue that this test provides evidence that while Sḵwx̱wú7mesh activities, achievements and inchoative states have intrinsic initial points, accomplishments in the language do not (§3). Turning to the second diagnostic (the effect of the auxiliary *mi* 'come'), I again present the relevant data for each predicate class and show the readings induced by the combination of these predicates with *mi* and argue that there is further evidence for the presence of intrinsic initial points in each of the predicate classes except for Sḵwx̱wú7mesh accomplishments (§4). I end this chapter with a discussion of some alternatives to the proposal and show what would have

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He states that the first sub-event of activities is "not a change of state but it is rather a beginning or initial point of an event which is indicated with a proposed operator BEGIN" (p. 23).

to be proposed in order to account for the Sḵwx̱wú7mesh facts and that, ultimately, these solutions are no better than the one proposed (§5).

2. Diagnosing initial points

I use the following diagnostics to argue for the above claims regarding the presence of initial points in the representations of Sḵwx̱wú7mesh predicates:

(5) *Diagnostics for initial points*

a. Punctual clauses and punctual adverbials

b. The auxiliary *mi* 'come'

The first diagnostic (a) tests for inceptive readings with punctual clauses and adverbials, while the second diagnostic (b) tests for an initial change of state. In this section I examine these diagnostics in detail, motivating their use as diagnostics for initial points, and showing how they are replicated in Sḵwx̱wú7mesh.

2.1. Test 1: readings induced by punctual clauses/adverbials

The effect of punctual clauses and adverbials has been discussed in the literature; however, the documented readings differ from author to author, specifically with respect to accomplishments (see Smith 1997, Bertinetto 2001, and Terry 2004, for some examples), and there does not seem any strong argument as to why the readings observed arise. In this section, I sketch out some of the readings that are induced by English punctual clauses/adverbials that have been reported in the literature, and outline the proposals that have been put forth to account for them. I will show that those proposals that attempt to explain how the readings are induced have difficulty accounting for the contrast between activities and accomplishments in English.[3] I will then motivate my proposal that the effect of punctual clauses/adverbials is a test for the presence of initial points in the meaning of predicates and show how this works for each Sḵwx̱wú7mesh predicate class.

[3] See Chapter Six for a detailed discussion of English activities and accomplishments.

2.1.1. On the reported effect of punctual clauses/adverbials

Smith argues that predicates with *durative* features (for her, accomplishments, activities and states) have an inceptive interpretation with momentary adverbials (what I call punctual adverbs), such as *at noon, at 5 o'clock exactly*, but that they have "direct" interpretations with instantaneous predicates (those with a [-Durative] feature, such as achievements, as in (d) and semelfactives, as in (e)):[4]

(6)	a.	They ate dinner at noon.	ACCOMPLISHMENT	(p. 42; ex. 9a)
	b.	He pushed the cart at noon.	ACTIVITY	(p. 45; ex. 18e)
	c.	The baby was asleep at noon.	STATE	(p. 47; ex. 27a)
	d.	The clock struck at noon.	ACHIEVEMENT	(p. 42; ex. 9b)
	e.	She tapped his shoulder at noon.	SEMELFACTIVE	(p. 46; ex. 23a)

As Smith suggests, the inception of the eating dinner event is interpreted as having taken place at noon in (a), the inception of the pushing the cart event is interpreted as having taken place at noon in (b) and although she does not state it, she predicts that the inception of the asleep state should be interpreted as having taken place at noon in (c). While I believe this reading to be possible under a specific context (e.g., I was trying to get the baby to sleep for a long time by reading her books and singing her songs and she was asleep at noon), the preferred reading here is almost certainly the stative reading (the baby fell asleep before noon, and was already asleep at noon).

Turning to *when*-clauses, Smith argues that they impose no particular temporal relation on situations and thus if one of two clauses is a *when*-clause, the events can be simultaneous, overlapping or successive, depending on the viewpoint (perfective or imperfective) of both clauses and the situation type of the predicates in both clauses. Since I am focusing on punctual events here, let us look at her account of *when*-clauses consisting of instantaneous events. Smith suggests that they can produce either a successive/simultaneous interpretation (a) or an overlapping interpretation (b), which is dependent on the viewpoint and the predicate class. The examples are given below with a discussion and schematic illustration to follow:

(7) a. Mary swam when the bell rang. ACTIVITY – PERFECTIVE

b. Mary was swimming when the bell rang. ACTIVITY – IMPERFECTIVE

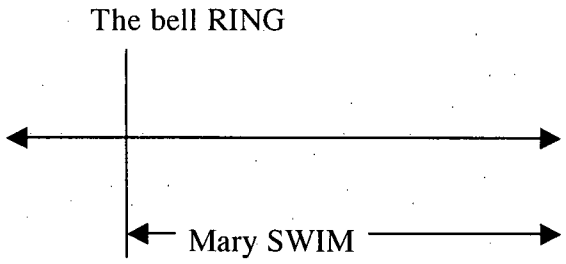
(8) a. Bill left when the bell rang. ACHIEVEMENT – PERFECTIVE

b. Bill was leaving when the bell rang. ACHIEVEMENT – IMPERFECTIVE

(Smith 1997, p. 64, ex. 6)

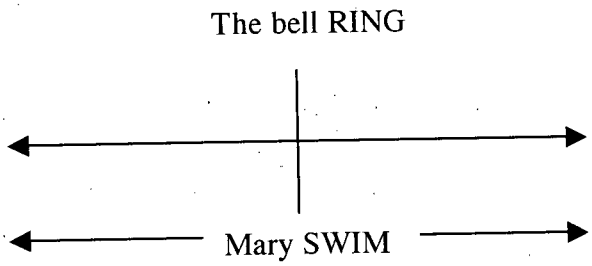
With a perfective activity predicate, as the one in (7a), it is only the initial point of the activity (the inception of the swimming event) that is either simultaneous with the bell ringing, or successive (the bell rings and then Mary starts to swim)[5]. However, with an imperfective activity, as in (7b), the events are overlapping: Mary was already swimming when the bell rang. These two sentences are illustrated below (the top horizontal line is the time line and the bottom horizontal line is the event time of the matrix clause):

(9) a. *Mary swam when the bell rang*



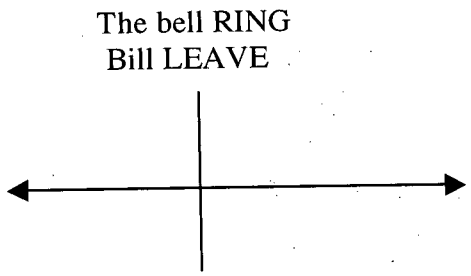
[4] I assume that by "direct" interpretation, Smith means that two instantaneous events occur simultaneously.
[5] Both readings may not be available for all speakers; I have not yet tested this. I do not believe that this impacts on the analysis presented here.

b. *Mary was swimming when the bell rang*



With a perfective achievement predicate, like the one in (8a), the entire two events happen either successively (the bell rings first and then Bill left just after) or simultaneously (both events occur at the same time). With an imperfective achievement, as in (8b), the two events are overlapping: Bill was in the middle of leaving when the bell rang. The reading in (a) is illustrated below:

(10) a. *Bill left when the bell rang*



Thus the sentence in (8b) differs from (7b) in that it is not the inception of the matrix event that co-occurs with the bell ringing, but the two events in their entirety occur simultaneously or immediately consecutively.

In Smith's words, "The perfective is taken as an inceptive in [(7a)] because swimming is a durative event. It is not plausible that a swimming event occur in its entirety at the same time as a bell ringing, but entirely plausible that it begin at that time" (p. 65). This does not explain why accomplishment predicates do not necessarily receive an inceptive reading as it seems to be the case that it is more plausible that they would begin at a certain time rather than the entire event occurring at a particular time; however, as is shown by the

English study in Chapter Six, the latter is the typical reading of accomplishment predicates (the "all at once" or "instantaneous" reading).[6]

Smith uses these data to argue that *when*-clauses show that the imperfective viewpoint does not semantically include endpoints; the sequential reading does not arise for sentences with an imperfective viewpoint in the main clause since the endpoints are not visible in this viewpoint. I extend this and argue that it also tests the membership of a predicate in an aspectual class, much like the punctual adverb. Thus, in my terms, the addition of a *when*-clause to a main clause that contains a perfective predicate tests whether an event has an initial point. Moreover, while I agree that the readings associated with punctual adverbials are related to the predicate class, I argue that it is not the durative or instantaneous feature that forces a particular reading, but the presence of initial points of the events that does so. Notice that many accomplishment predicates do not have an inceptive interpretation with punctual clauses/adverbials. Often these predicates are odd with these adverbials and for many speakers the intended meaning is that the entire event happened at noon:

(11) a. #She knit a sweater at noon.
b. #She wrote the book at noon.
c. #She built the house at noon.

I suggest that the claim that this is an initial point test will not only account for the facts but will provide an explanation of the facts.

Rothstein (2004) suggests that the phrase *at α time* temporally locates an event at a particular point in time. Examining each aspectual class with a punctually locating expression, she suggests that this type of phrase classifies states and achievements together, presumably because predicates from both classes can occur with such expressions without shifting the meaning in any way. Rothstein suggests that states can hold at instants because they are "totally homogeneous" (a-b); achievements can be punctually located since they are instantaneous (c). She then suggests that "when an activity occurs with a punctual adverb, the

[6] In that chapter I also discuss the inceptive reading that seems to be available for accomplishments in certain contexts and suggest a possible explanation.

effect is to assert that the activity began at the temporal point given, presumably since this is the only privileged instantaneous event available" (p. 25). As for accomplishments (e) Rothstein states that they do not have an inceptive reading, but does not explain why (e) is infelicitous:

(12)	a.	At that moment, John believed in miracles.	STATE
	b.	Mary was happy at midnight.	STATE
	c.	The guests arrived at midnight.	ACHIEVEMENT
	d.	John ran at 9 p.m.	ACTIVITY
	e.	#Mary painted a picture at midnight.	ACCOMPLISHMENT

(Rothstein 2004:25; ex. 41)

Unlike Smith, who argues that semelfactives are a separate predicate class, Rothstein suggests that activities have semelfactive "single event" uses. This is seen clearly with punctual clauses/adverbials:

(13) a. John jumped at ten o'clock.
b. Mary winked at twelve o'clock to remind me to make the phone call.

(Rothstein 2004:184; ex. 3a-b)

Rothstein might argue that English accomplishments have two privileged points – an initial and a final, and thus might predict an inceptive or culminating reading. However, she might also say that since English accomplishments have more than one "point", there is no privileged point, in which case that might account for the infelicity. Since Rothstein does not explain this any further, I can only speculate on how she would account for the accomplishments; however, as it stands, it is not clear how the contrast between activities and accomplishments can be accounted for.

Like Smith, Bertinetto (2001) appeals to the notion of durativity to contrast achievements, states and accomplishments. He argues that while the achievement in (a) suggests that the event occurred precisely at that moment (noon), the state in (b) and the accomplishment in (c) are unnatural and that they can "at most indicate (depending on the

situation) the initial or final boundary of the event" (p. 179) (the notions are those used by the author):

(14)	a.	John reached the top of the mountain at noon.	ACHIEVEMENT
	b.	??John liked the music at midnight two days ago.	STATE
	c.	??John wrote his dissertation at 5 o'clock last Tuesday.	ACCOMPLISHMENT

Bertinetto does not refer to activities in the context of punctual adverbials, though they, like states and accomplishments and in contrast to achievements, are assigned a durative feature in his system. As I noted in regards to Smith's analysis above, the durative feature alone cannot account for the contrast in readings/judgements of predicates from different classes induced by punctual clauses.

Finally, Terry (2004) presents the following data that illustrates the contrast between achievements and accomplishments; he shows that in English only events that could "reasonably occur during a very short period of time" are possible answers to the question 'What happened while Esther was entering the room?' (boldface has been added):

(15) What happened while Esther was entering the room?

(16) a. Eugene dropped cake.
b. Eugene started eating the cake.
c. Eugene finished eating the cake.
d. ? Eugene ate the cake.
e. ?? Eugene wrote his dissertation.

(Terry 2004: 77; ex. 79)

Terry states that the sentences in (d) and (e) above are both strange as answers to the above question. As he notes, (d) is "distinctly odd, forcing an interpretation under which Eugene ate an entire cake while Esther was opening he door and walking into the room – surely an exaggeration. This sentence...cannot mean that Eugene started eating, finished eating, or continued eating the cake. The entire cake-eating event must be contained within the topic

time". (p. 77). The same is true for the sentence in (e) above which, again, according to Terry, "forces the pragmatically odd reading under which Eugene writes an entire dissertation during what any graduate student knows to be an unreasonably short period of time. This sentence cannot mean that Eugene was simply working on his dissertation, writing, for instance, the very first sentence" (p. 77). I will show in Chapter Six that these judgements closely parallel the judgements of my English consultants. Like Bertinetto, Terry does not refer to the readings induced by activities in this context. Thus, I can only assume that Terry would say that the sentence *Eugene ran* would be a reasonable answer to the question in (13) above, and that it would meant that Eugene began running at the interval that Esther entered the room. Moreover, I assume that Terry would argue that this sentence is a reasonable answer to the question since beginning to run is an event that can "reasonably occur during a very short period of time". However, like the other analyses discussed thus far, there does not seem to be any further explanation as to the contrast between activities and accomplishments with respect to the readings induced.

A summary of these reported effects is given in the table below:

(17) *The reported effect of punctual clauses/adverbials: summary*

	Activities	**Accomplishments**	**Achievements**	**States**
Smith	[+Durative] *inceptive*	[+Durative] *inceptive*	[-Durative] *direct*	[+Durative] *inceptive/stative*
Rothstein	Privileged instantaneous event *inceptive*	#	Instantaneous *instantaneous*	Homogenous *inceptive/stative*
Bertinetto	[+Durative] ?	[+Durative] # *(inceptive, culminating)*	[-Durative] *instantaneous*	[+Durative] # *(inceptive, culminating)*
Terry	-	#	*instantaneous*	-

I suggest that the table above raises three important issues: first, it should be clear that researchers do not agree as to the readings induced by punctual clauses/adverbials. For example, while Smith argues that accomplishments are felicitous in these contexts, and that they induce inceptive readings. Bertinetto, Rothstein and Terry argue that accomplishments

are infelicitous in these contexts; Bertinetto suggests that this can only have an inceptive or culminating reading, neither of which is possible. As for states, Smith and Rothstein suggest that they have both inceptive and stative readings with punctual clauses; Bertinetto suggests that states are infelicitous with punctual clauses and at the most can have inceptive or culminating readings.

Second, the table above shows that the ways in which researchers account for the readings they propose, and as a result, the ways in which they group predicate classes, differ. For example, Smith and Bertinetto both propose that activities, accomplishments and states have a [+Durative] feature and thus all behave the same in this context, while achievements have a [-Durative] feature and behave differently[7]. However, Rothstein argues that achievements and states pattern together in that they can both "be punctually located"; for her, state are homogenous and hold at instants, which is meant to explain why they can get both inceptive (12a) and stative readings (12b). Achievements for Rothstein are instantaneous changes of states and thus, as she puts it, can be punctually located.

Finally, what the above chart and previous discussion shows is that these analyses do not seem to be able to account for the contrast in readings induced by punctual clauses. For example, Smith's durative feature alone does not seem to be able to explain why accomplishments also have instantaneous readings and are often judged infelicitous, nor can the durative feature alone explain why states have both inceptive and stative readings with punctual clauses. Rothstein's privileged instantaneous event which is meant to account for the inceptive reading of activities, does not explain the infelicity of accomplishments. Moreover, since for her, activities are homogenous as well, there is no account here for why states have both inceptive and stative readings, while activities only have inceptive readings. Although Bertinetto and Terry do not discuss activities, it does appear that neither of them will be able to account for the contrast between activities and accomplishments in these contexts.

I suggest that the analysis I propose can account for the readings induced by punctual clauses, and the contrast across predicate classes in Sḵwx̱wú7mesh, by appealing to the

[7] Even though Smith and Bertinetto's systems use the same feature here, they actually make different claims as to the readings punctual clauses induce.

presence of initial points in the predicate representations. In the next section, I show how this test works in Sḵwx̱wú7mesh.

2.1.2. Punctual clause/adverbials in Sḵwx̱wú7mesh

The types of examples I use to examine these effects in Sḵwx̱wú7mesh are shown below. Punctual clauses are nominalized clauses that behave like *when*-clauses in English (they are translated as such by Sḵwx̱wú7mesh speakers). Punctual adverbials are locative phrases that behave like *at* clauses in English (and are translated as such by speakers). Example sentences are shown below:

(18) a. chen ... kwi-n-s kw'ach-nexw kwa John
1S.SG ... DET-1POSS-NOM see-TR(LC) DET John
'I X-ed...when I saw John.'

b. chen... na7 ta an'us-ḵ
1S.SG... LOC DET 2-o'clock
'I X-ed at 2 o'clock.'

I argue that the readings that result from these test sentences provide evidence for the presence/absence of initial points in predicate representation.

2.2. Test 2: readings induced by *mi* 'come'

The Sḵwx̱wú7mesh morpheme *mi* can be used as a main predicate or as an auxiliary. This is observed by both Kuipers (1967) and Currie (1997), and has been observed in recent elicitation as well. Kuipers refers to *mi* as a directional clitic or a full verb. He states that *mi* sometimes corresponds to English 'come' in expressions like 'come have a look' or 'come on, do it', and in other cases, it functions as a more general direction-indicator. The examples below illustrate that, as a main predicate, *mi* is translated as 'come':

(19) a. **mi** chexw
come 2S.SG
'Come here.'

b. chen lhk̲'i7s ti natlh kwi-s **mi**
1S.SG know DET morning DET-NOM come
'I knew this morning that you were coming.'

When it behaves as an auxiliary, *mi* combines with the main predicate and can yield a number of different readings. For example, in some cases, *mi* yields a 'directional' meaning of the predicate. This is shown in the data below where *mi* is translated as 'come' and add a directional meaning to the predicates *uys* 'enter' and *t'ukw'* 'go home':

(20) a. **mi** chexw uys
come 2S.SG enter
'Come inside.'
(Kuipers 1967:161)

b. **mi** t'ukw'
come go.home
'Come home.'
(Kuipers 1967:257)

In Bar-el (2003b), I sketched out a first pass at an analysis that accounts for the readings associated with *mi* when it combines with verbs of different classes. I argued that (i) *mi* foregrounds the initial point of an event, but does not introduce one, and (ii) if the event has no initial point, *mi* contributes the meaning 'come' to create a complex predicate. The analysis presented here will attempt to take that proposal further and show how the facts with the auxiliary *mi* provide evidence for the existence of initial points.

Focusing on the auxiliary behaviour of *mi*, I claim in this chapter that the meaning associated with the complex predicate made up of *mi* and a verbal predicate is dependent on the aspectual class of that predicate. Thus, these data provides further evidence for the classification of Sk̲wx̲wú7mesh predicates and the presence of (initial) BECOME events in predicate representations. I propose that *mi* picks out BECOME in the denotation of a predicate to yield an inchoative reading.

3. Test 1: the readings induced by punctual clauses/adverbials in Sḵwx̱wú7mesh

In this section, I explore the readings induced by punctual clauses and adverbials in Sḵwx̱wú7mesh. Based on the data in the remaining sections, I show the following results of this diagnostic which I suggest provide evidence for the following claims with respect to the presence of initial points in the representation of Sḵwx̱wú7mesh predicates:

(21) *Sḵwx̱wú7mesh Initial points: Punctual clauses/adverbials*

	Readings with Punctual Clauses/Adverbials	**Initial Point**
Activity	inceptive	✓
Accomplishment	inceptive, medial, culminating	×
Achievement	entire event (instantaneous)	✓
Inchoative state	inchoative[8]	✓

As shown in Chapter One, I assume the meaning of the perfective is such that the event time is situated inside the reference time (see Klein 1994 and Kratzer 1998). The schema is shown again below:

(22) [REFERENCE TIME [EVENT TIME]]

I follow Currie (1997) who argues that postverbal adverbs in Sḵwx̱wú7mesh unambiguously have topic time readings (reference time, in the terminology employed here).[9] The *when* clause/adverbial indicates the reference time while the matrix clause indicates the event time; thus, the time at which the event of the matrix clause takes place must be *at*[10] or *inside* the time at which the event of the *when* clause takes place. If the event denoted by the *when*

[8] Smith (1997) states that *inchoatives* present the coming about of a state, while *inceptives* present the entry into an event. Kinkade and Kiyota (1996) note that "[t]he beginning of change is properly labeled 'inchoative' or 'inceptive'" (p. 236) and Kinkade (p.c.) suggests that the two terms refer to the same thing. I use the term *inceptive* in the predication for predicates with a DO operator and the term inchoative in the prediction for predicates without a DO operator. I think this is a terminological issue rather than theoretical one. The point is to note the "initial point" readings, which seem to correspond to either inchoative or inceptive, depending on the meaning of the predicate.

[9] Currie does not examine punctual adverbs, although I assume her claim to hold for these as well.

[10] "at" is Klein's term and is often appropriate for momentary events.

clause is punctual, the only way the matrix clause could be at or inside the event of the *when* clause is if it the matrix clause was also punctual. This is illustrated below:

(23) [REFERENCE TIME [EVENT TIME]]

when clause	*matrix clause*
(punctual)	(punctual)

A remaining question is then how to deal with predicates that are not themselves punctual. In this chapter I motivate the claim that activities, achievements and inchoative states have initial points; however, only achievements can be considered "punctual". I have to then account for how activities and inchoative states (both of which have initial points, but are not punctual) become punctual.

I appeal to Rothstein's (2004) shift operation that she claims is triggered by the progressive, and shifts achievements into accomplishments. She states that achievements are near instantaneous events that are over as soon as they have begun; thus they are not expected to occur in the progressive, but sometimes they do. Examples are given again below:

(24) a. The old man is dying.
b. The plane is landing.

(Rothstein 2004:36, ex. d-e)

Rothstein proposes that in the progressive, an achievement is *shifted* into an accomplishment where the culmination of the accomplishment is the original achievement:[11]

(25) $\text{SHIFT}(VP_{\text{punctual}})$: $\lambda e.(\text{BECOME}(P))(e) \rightarrow$
$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{DO}(\alpha))(e_1) \wedge (\text{BECOME}(P))(e_2) \wedge \text{Cul}(e)=e_2]$

[11] These are simplified representations that leave out the thematic arguments. See Rothstein (2004) for a detailed discussion.

I propose here that in Sḵwx̱wú7mesh, punctual clauses/adverbials can trigger a shift operation where an achievement is derived from an activity or an inchoative state. Once this shift operation takes place, the activity or state, which did not start off as a punctual event, becomes a punctual event. An illustration of a shifted activity is given below:

(26) SHIFT $(\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]) \rightarrow$
$= \lambda e.(\text{BECOME}(P))(e)$

These representations are discussed in detail in the relevant sections below.

3.1. Sḵwx̱wú7mesh activities

3.1.1. Punctual clauses induce inceptive readings

In Sḵwx̱wú7mesh, the addition of a punctual clause to an activity yields an inceptive reading of the main event. This is emphasized by the speaker's comments that the embedded event is in some sense the cause of the main event, as in (26a). Furthermore, the medial reading is unavailable for basic predicates in these structures, as shown explicitly in (26c), illustrating again that the inceptive reading is the only reading available (the predicate is bolded and the "when"-clause is bracketed):[12]

(27) a. chen **x̱ay-m** [kwi-n-s kw'ach-nexw kwa John]
1S.SG **laugh-INTR** [DET-1POSS-NOM see-TR(LC) DET John]
'I laughed when I saw John.'
Speaker's comments: It's because you saw John that you started to laugh

b. na **itut** [ta John na7 ta 7an'us-ḵ]
RL **sleep** [DET John LOC DET 2-o'clock]
'John fell asleep at two.'

c. chen **lulum** [kwi s-es tl'iḵ' ta John]
1S.SG **sing** [DET NOM-3POSS arrive DET John]
'I sang when John got here'
*'I was singing when John got here.'

[12] *When*-clauses in Sḵwx̱wú7mesh are expressed as nominalized clauses, introduced by the determiner *kwi*. See the appendix for further discussion.

d. chen **lulum** [yew'aniwilh kwi-s-es huyá7 ta Peter]
1S.SG **sing** [before DET-NOM-3POSS leave DET Peter]
'I started singing before Peter left.'

The facts are confirmed further when comparing the perfective and imperfective forms of the predicates. I propose that *wa* is the imperfective marker and that the CV- reduplicant is the progressive maker (see Chapter Five); the data below show that the imperfective or progressive forms yield on-going interpretations with punctual embedded clauses while the perfective forms yield inceptive readings, even when the translation does not explicitly say so. For example, in the (a) example below (the perfective), the event of the speaker crying begins at the moment of (or immediately following) John's arrival; in the (b) example (the imperfective, indicated by the addition of *wa*), however, as the speaker's comments indicate, the event of the speaker crying had begun prior to John's arrival and is in progress at the moment when John enters:

(28) a. chen **xaa-m** kwi s-es tl'ik kwa John
1S.SG cry-INTR DET NOM-3POSS arrive DET John
'I cried when John got here.'

b. chen **wa** **xaa-m**
1S.SG **IMPERF** **cry-INTR**
kwi s-es tl'ik kwa John
DET NOM-3POSS arrive DET John
'I was crying when John got here.'
Speaker's comments: "You say this if you had been crying for a while before"

(29) a. na **kway** ta sta7uxwlh
RL **hide** DET children
kwi s-es tl'ik lha Mary
DET NOM-3POSS arrive DET Mary
'The children hid when Mary came.'
✓Context: Mary arrived, then children went to hide

b. na **wa** **kway** ta sta7uxwlh
RL **IMPERF** **hide** DET children

kwi s-es tl'ik lha Mary
DET NOM-3POSS arrive DET Mary

'The children were hiding when Mary came.'

(30) a. na **shupn** lha Carrie
RL **whistle** DET Carrie

kwi s-es tin-tin ta new'tstn
DET NOM-3POSS REDUP-ring DET phone

'Carrie whistled when the phone rang.'
×Context: Carrie was whistling
Speaker's comments: "You said whistled ...shushpn [reduplicated form] is for whistling"[13]

b. na **wa** **shu-shpn** lha Carrie
RL **IMPERF** **REDUP-whistle** DET Carrie

kwi s-es tin-tin ta new'tstn
DET NOM-3POSS REDUP-ring DET phone

'Carrie was already whistling when the phone rang.'[14]

(31) a. chen **itut** kwi s-es huy-nexw ta sxwexwiy'ám
1S.SG **sleep** DET NOM-3POSS finish-TR(LC) DET story
'I went to sleep when he finished the story.'

b. chen **wa** **i-7tut**[15]
1S.SG **IMPERF** **REDUP-sleep**

kwi s-es huy-nexw ta sxwexwiy'ám
DET NOM-3POSS finish-TR(LC) DET story

'I was sleeping when he finished the story.'

(32) a. chen **xwitim** kwi s-es tin-tin ta new'tstn
1S.SG **jump** DET NOM-3POSS REDUP-ring DET phone
'I jumped when the phone rang.'
Speaker's comments: "Maybe it startled you"

[13] See Chapter Five for the claim that the CV- reduplicant is the Skwxwú7mesh progressive marker.
[14] The speaker only offered "already whistling" for a gloss; I take this translation to be an appropriate one.
[15] In the form for *sleep* there is an initial glottal stop that is not represented in the orthography.

b. chen **wa** **xwi-xwitim**
1S.SG IMPERF REDUP-jump

kwi s-es tin-tin ta new'tstn
DET NOM-3POSS REDUP-ring DET phone

'I was jumping when the phone rang.'
✓Context: phone did not make me jump but I was jumping maybe for exercise and then the phone rang

(33) a. chen **tkwaya7n** ta slulum
1S.SG **hear** DET song

kwi s-es tl'ik kwa John
DET NOM-3POSS arrive DET John

'I heard the song when John got here.'
✓Context: John was singing the song (I only heard it once he got here)
×Context: I could hear it before John arrived – *Speaker's comments: "I guess it's possible, but only if you were a spiritual dancer"*

b. chen **wa** **tkwaya7n** ta slulum
1S.SG **IMPERF** **hear** DET song

kwi s-es tl'ik kwa John
DET NOM-3POSS arrive DET John

'I was listening to the song when John got here.'
✓Context: I was already listening/could already hear it before John arrived

(34) a. chen **chay-n** ta sxwi7shn
1S.SG **follow-TR** DET deer

kwi s-es huyá7 kwa John
DET NOM-3POSS leave DET John

'I followed the deer when John left.'
Speaker's comments: [In response to whether John and I could have both been following the deer] "You followed it by yourself"

b. chen **wa** **chay-n** ta sxwi7shn
1S.SG **IMPERF** **follow-TR** DET deer

kwi s-es huyá7 kwa John
DET NOM-3POSS leave DET John

'I am following the deer when John left.'
Speaker's comments: [In response to whether John and I could have both been following the deer] "Sounds like they were together when they started then he left and she was alone"

Further evidence of the inceptive reading is shown below where the speaker offers a perfective sentence when asked to translate the English sentence 'I started laughing when I saw John' into Sḵwx̱wú7mesh:[16]

(35) a.

an	chen	x̱ay-m			
very	1S.SG	laugh-INTR			
s-en	wa	kw'ach-nexw	kwa	John	
NOM-1CNJ	IMPERF	see-TR(LC)	DET	John	

'I started laughing when I saw John.'

3.1.2. Sḵwx̱wú7mesh activities have initial points

I argue that the data above are evidence that Sḵwx̱wú7mesh activities have initial points in their representations. This initial point is represented as an initial BECOME sub-event:

(36) *Sḵwx̱wú7mesh Activities*

$\lambda e.\exists e_1 \exists e_2 [e =^{s} (e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1)} \wedge (DO(P))(e_2)]$

According to this representation, a Sḵwx̱wú7mesh activity consists of two sub-events: a BECOME sub-event and a DO sub-event. The first sub-event, BECOME, is a distinct sub-event from the rest of the sub-events of the activity predicate (an initial point).[17] The punctual clause picks out that BECOME sub-event, yielding an inchoative reading. The question is, how does this happen; that is, how does the punctual clause "pick out" the initial BECOME sub-event? This is discussed in the following section.

3.1.3. Punctual clauses trigger a shift operation: activities → achievements

An activity itself is not a punctual event, but as I am proposing here, a Sḵwx̱wú7mesh activity does have punctual sub-events. The most obvious punctual sub-event of an activity is its initial point. Recall the representation for Sḵwx̱wú7mesh activities below with the punctual initial sub-event bolded:

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[16] This contrasts with accomplishment predicates (see next section).

[17] This claim has consequences for the notion of "sub-interval property" (Bennet and Partee 1978) which is meant to characterize activities, but not accomplishments, for example. I argue that activities do not in fact have

(37) $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1)} \wedge (DO(P))(e_2)]$

The question is, how does the punctual sub-event of the activity become the event of the matrix clause?

I propose that the punctual event of the *when*-clause/adverbial in Sḵwx̱wú7mesh triggers a shift operation where the activity of the matrix clause (which includes both a BECOME sub-event and a DO sub-event) is shifted to a predicate that is punctual. There are two possible ways of representing a shifted punctual event such as this; these are illustrated below:

(38) *Option #1*

a. SHIFT $(\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge (DO(P))(e_2)]) \rightarrow$
$= \lambda e.(BECOME\ (DO\ (P)))(e)$

Option #2

b. SHIFT $(\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge (DO(P))(e_2)]) \rightarrow$
$= \lambda e.(BECOME\ (P))(e)$

The representation in (a) is in the spirit of Dowty's representation for what he calls the *inchoation of an activity*, which he exemplifies with a sentence like 'John began to walk'. This differs from the representation in (b) in that (b) lacks a DO operator and thus looks identical to the structure of an achievement (in both English and Sḵwx̱wú7mesh). Note, however, that Dowty categorizes the structure in (a) as an achievement as well.

Crucially, the shift operation can only be triggered if the original representation of an activity contains a BECOME event. If initial points were not introduced into the meaning of activities, I would still need to explain where these initial points are derived from. In the next section I explore two possible alternatives to the above proposal and explain why I do not adopt either of them.

The two options given in (38) above raise an important question as to the representation of initial points of activities. That is, the representation in (a) above suggests

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the sub-interval property, which actually solves some of the problems of the sub-interval property that have

that perhaps the initial point of activities should be represented as a (BECOME(DO(P))), yielding the following representation of Sḵwx̱wú7mesh activities (initial point is bolded):

(39) $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge \mathbf{(BECOME(DO(P)))(e_1)} \wedge (DO(P))(e_2)]$

To adopt this representation, I would need evidence that the initial point of an activity is indeed different from the initial point of an achievement. At this point, I do not have clear evidence that this is the case. However, it may be worth pointing out here that if activities had the representation in (38), it would suggest that the initial points of activities and inchoative states are different. Again, this may be the case, but further evidence is needed. Until evidence to support these possibilities is available, I adopt the representation of activities as given in (36) above, noting the possibility of the representation in (38), and the fact that I do not believe the difference between the two to have a huge impact on the analysis.

3.1.4. Summary

A summary of the results is shown in the chart below:

(40) *Accomplishments: initial points*

	Punctual Clauses: readings	**Representation**	**Initial Point**	**Shift**
Activity	inceptive	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))**$(e_1) \wedge (DO(P))(e_2)]$	✓	✓

The fact that punctual clauses induce inceptive readings with perfective activities is motivation for claiming that activities have initial points in their representations. Given the complex representation of Sḵwx̱wú7mesh activities as consisting of two sub-events, I propose that the punctual clause triggers a shift operation whereby the activity is shifted into an achievement.

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been identified (Bach 1981). This is discussed in greater detail in §5.2 of this chapter.

3.2. Skwxwú7mesh accomplishments

3.2.1. Punctual clauses induce inceptive, medial and culminative readings

In addition to inceptive readings, punctual clauses and adverbials yield medial and culminating readings with accomplishments. The culminating reading is illustrated in the data below where the main clause sentence contains a perfective (unmarked) accomplishment predicate, while the *when*-clause contains a perfective achievement (punctual clause). I conclude from the data below that at least in some cases, the sentence is only compatible with a context where the event ends simultaneously with the event of the punctual clause, and is incompatible with a context where the event begins simultaneously with the event of the punctual clause:

(41) a. chen xel'-t kwi book
1S.SG write-TR DET book

kwi-s-es tl'ik kwa John
DET-NOM-3POSS arrive DET John

'I wrote a book when John arrived.'
✓Context: I finished writing a book (I wrote the last word)
×Context: I started to write a book

b. chen lhen'-t ta basket[18]
1S.SG weave-TR DET basket

kwi-s-es tl'ik kwa John
DET-NOM-3POSS arrive DET John

'I wove a basket when John arrived.'
✓Context: I finished weaving the basket (I wove the last stitch)
×Context: I started to weave

However, perfective accomplishment predicates can also yield inceptive readings when they occur with a punctual clause/adverbial. This is illustrated by the data below where, for example, in (b), the sentence is only compatible with a context where the sewing begins at the same time of the punctual adverbial:

[18] The speaker uses the English word here rather than the Skwxwú7mesh word *sitn* for basket, which speakers generally only use for a berry basket.

(42) a. Q: ti7éncha kwi-s chexw p'ats'-an ta hem'ten?
Q: from.where DET-NOM 2S.SG sew-TR DET blanket
Q: 'When are you going to sew the blanket?'

A: na7 t-kwi nch'u7-k
A: LOC OBL-DET one-o'clock
A: 'At one o'clock.'

b. chen p'ats'-an ta hem'ten
1S.SG sew-TR DET blanket

na7 t-kwi nch'u7-k
LOC OBL-DET one-o'clock

'I sewed the blanket at one o'clock.'
✓Context: started at one o'clock
×Context: finished at one
Speaker's comments: "Just means you sewed it, started sewing it at 1 o'clock"

The speaker volunteers the following sentence as appropriate for the context unavailable in (b) above, namely, the culmination reading. In the sentence below, the speaker uses the overt lexical item for 'finish', *huy*:

(43) chen p'ats'-an ta hem'ten.
1S.SG sew-TR DET blanket.

chen huy-nexw na7 t-kwi nch'u7-k
1S.SG finish-TR(LC) LOC OBL-DET one-o'clock

'I sewed the blanket. I finished it at 1 o'clock.'[19]

A consecutive reading is available for perfective accomplishments with the addition of a punctual clause. This is illustrated below where the sentence is only compatible with a context where the initial point of the accomplishment is consecutive with the entire event of the punctual clause, and incompatible with a context in which the final point of the accomplishment is consecutive with the entire event of the punctual clause:

[19] No translation was given, though I assume this to be an appropriate one.

(44) na pen-t-as ta shaw' ta sk̲wemay'
RL bury-TR-3ERG DET bone DET dog

kwi s-es huyá7 kwa John
DET NOM-3POSS leave DET John

'The dog planted the bones when John left.'
✓Context: started after John left
×Context: planted them before John left[20]

As above, the speaker offers an alternative sentence that would be appropriate for the context that is unavailable for the previous sentence. This is illustrated below where the overt phrase *ses men*, roughly translated as 'and then' is added to emphasize that the complete accomplishment occurred prior to the achievement of the embedded clause. The speaker's comments highlight this further:

(45) na pen-t-as ta shaw' ta sk̲wemay'
RL bury-TR-3ERG DET bone DET dog

s-es men huyá7 kwa John
NOM-3POSS then leave DET John

'The dog buried the bones and then John left.'[21]
Speaker's comments: "John waited until he was finished"

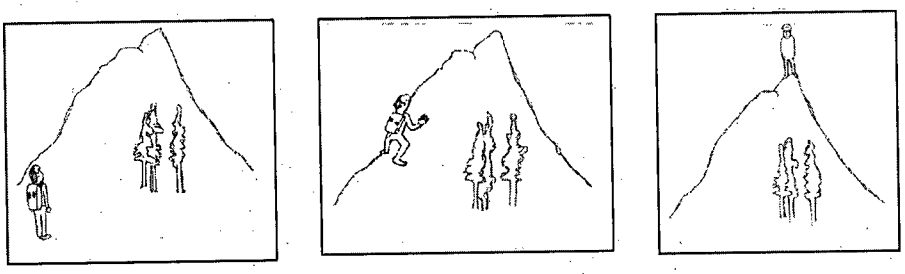
The above data illustrate the implicature of culmination with accomplishments. However, the above sentence should also be appropriate in a context where the dog was in the midst of burying the bones when John left, given the relevant circumstances.

Speakers also allow perfective accomplishments in more than one context. This is illustrated below where first, the speaker offers the reading where the final point is focused, which here is illustrated by the speaker's comments "he reached the top"; but they also allow a medial reading of the sentence as well, which here is illustrated by the fact that the sentence is appropriate in a context where John is only half-way up the mountain (it is not yet clear whether the initial point reading is also available):

[20] I still need to establish whether the in progress reading is available here: 'the dog was burying the bones when John left'.
[21] No translation was given, though I assume this to be an appropriate one.

(46) na kat ta smanit na7 t-kwi nch'u7-k
RL climb DET mountain LOC OBL-DET one-o'clock
'He climbed the mountain at one o'clock.'
Speaker's comments: "He climbed the mountain by one o'clock...he reached the top"

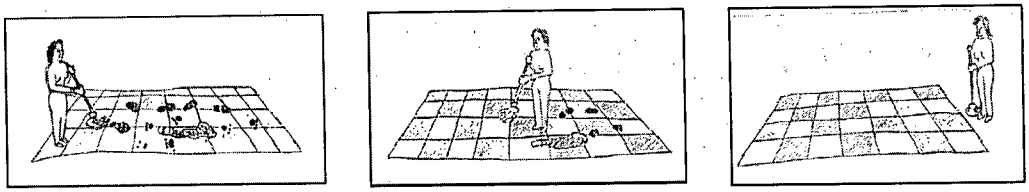
?Context: inceptive ✓Context: medial ✓Context: final



The sentence below illustrates that speakers allow both inceptive and medial readings. These data were elicited using pictures (see appendix); speakers accept the sentence in a context where Mary is just beginning to wash the floor (indicated in the picture where floor is still dirty but Mary is holding a mop and seemingly beginning to wash it). Speakers also accept the sentence in a context where Mary is in the middle of washing the floor (indicated in a picture where the floor is half-clean and half-dirty and Mary is in the midst of mopping it):

(47) na mikw'-int-as ta lhxenptn lha Mary na7 t-nch'u7-k
RL wash-TR-3ERG DET floor DET Mary LOC OBL-one-o'clock
'Mary washed the floor at one o'clock.'

✓Context: inceptive ✓Context: medial ?Context: final



Variation among speakers and sentences is further shown by sentences like the one below. In this sentence, the first speaker prefers the reading whereby the initial point of the event is focused, while the second speaker prefers the reading whereby the final point of the

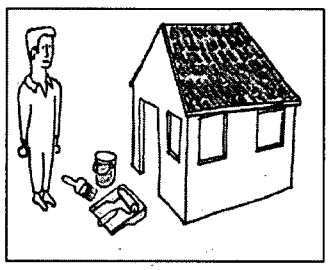
event is focused. Both speakers, however, allow for the reading where a medial point of the event is focused.

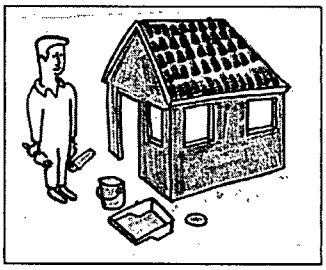
(48) na yetl'k'-ant-as ta lam' ta John
RL paint-TR-3ERG DET house DET John

na7 t-kwi nch'u7-k
LOC OBL-DET one-o'clock'

'John painted the house at 1 o'clock.'

✓Context: inceptive (spkr 1) ✓Context: medial (spks1+2) ✓Context: final (spkr 2)

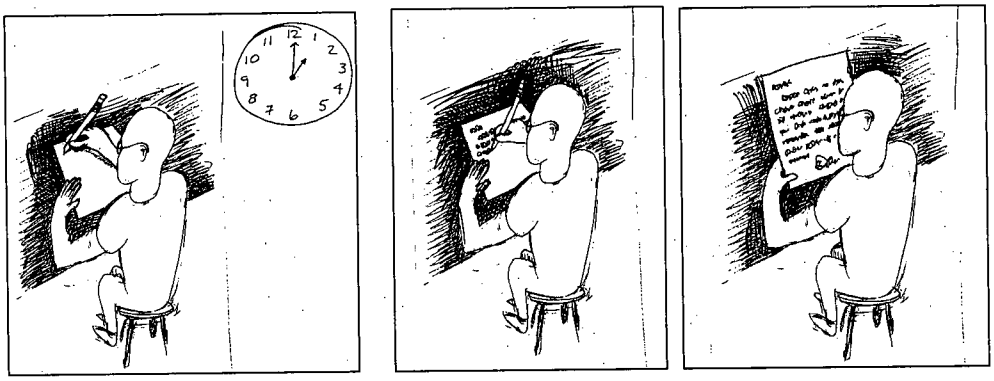




There are even other cases where all three readings are available for the same sentence, as illustrated below:

(49) na **xel'-t**-as ta sxwexwiy'am' kwa John
RL **write-TR**-3ERG DET story DET John
na7 t-kwi an'us-k
LOC OBL-DET two-o'clock
'John wrote the story at 2 o'clock.'

✓Context: inceptive ✓Context: medial: ✓Context: final



Note, however, that in some cases, for the culminating context, the speaker volunteers a more appropriate sentence with the overt lexical item corresponding to 'finish', as shown below:

(50) chen huy-nexw ta sxwexwiy'am' na7 ta nch'u7-k
1S.SG finish-TR(LC) DET story LOC DET one-o'clock
'I finished the story at 1 o'clock.'

The data thus show that Skwxwú7mesh accomplishments are compatible with inceptive, medial and culminating contexts. It is clear from the data above that in some cases, speakers differ as to which reading they prefer, and in other cases, some speakers only allow some of the readings, and not all of them. Although I have not yet systematically examined "preferred" readings with these predicates, it is clear that there are also alternative ways to express at least the medial and final readings.

The Skwxwú7mesh data introduced here differs from English in two ways. First, perfective accomplishments modified by punctual clauses are often judged unusual in English. Recall the data illustrated above and repeated below, where perfective accomplishment predicates in English do not seem to be compatible with punctual clauses or adverbials:

(51) #Mary painted a picture at midnight. (Rothstein 2004: 25, ex. 41e)

(52) ??John wrote his dissertation at 5 o'clock last Tuesday. (Bertinetto 2001:179)

(53) a. What happened while Esther was entering the room?
b. ? Eugene ate the cake.
c. ?? Eugene wrote his dissertation. (Terry 2004: 77; ex. 79)

The parallel Sḵwx̱wú7mesh sentences are judged as not at all unusual by speakers.

Secondly, researchers suggest different possible readings for the above sentences (if, that is, a reading had to be assigned to them); in particular, Bertinetto (2001) suggests that sentences like those above can "at most indicate (depending on the situation) the initial or final boundary of the event". Contrast this with Terry who suggests that the sentence in (b), for example, "cannot mean that Eugene started eating, finished eating, or continued eating the plate of rutabagas. The entire rutabaga eating event must be contained within the topic time". In Sḵwx̱wú7mesh, however, speakers allow a variety of readings. The crucial issue is then, how to account for the observed readings in Sḵwx̱wú7mesh.

3.2.2. Sḵwx̱wú7mesh accomplishments do not have intrinsic initial points

I propose that Sḵwx̱wú7mesh accomplishments do not have initial points in their representation. as there is no initial point built into it; in other words, there is no initial BECOME event in their representation. This is illustrated below (recall that accomplishments have culmination implicatures):

(54) *Sḵwx̱wú7mesh Accomplishments*

λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]

Recall that punctual clauses induce only inceptive readings with activities, which I took as one piece of evidence that activities have initial points. If accomplishments had initial points as well, we would expect both inceptive and culminating readings (which we do observe), but not the medial readings that are also induced by punctual clauses. I argue that

Sḵwx̱wú7mesh accomplishments do not have initial points as part of their representation, and that this can straightforwardly account for the data illustrated above.

However, I am still left to explain why there are three possible readings. I propose that the fact that perfective accomplishments modified by punctual clauses are accepted in inceptive, medial and culminating contexts suggests that each of these intervals (beginning, medial and final) have equal status in the meaning of Sḵwx̱wú7mesh accomplishment predicates; in other words, there is no particular point that will necessarily be more salient than any other point. This results in the fact that speakers can differ as to what they would assume to be the most salient point of the event, and as such, we observe a variety of different readings with punctual clauses/adverbials. This contrasts with activity predicates in that the addition of a punctual clause/adverbial to a perfective Sḵwx̱wú7mesh activity always induces an inceptive reading, and not a medial reading. Thus, while there is no BECOME event in the meaning of a Sḵwx̱wú7mesh accomplishment, the proposal here implies that the initial point of a Sḵwx̱wú7mesh accomplishment is defined by the fact that it has no sub-event that precedes it. Contrary to Sḵwx̱wú7mesh activities, the punctual clauses/adverbials do not trigger any shift operation.

Note, however, that this forces us to say something more about the English facts and the representation of endpoints in English predicates. In other words, I need to explain why English activities (represented by Rothstein as containing only a DO operator) yield inceptive readings in these environments, and accomplishments (represented by Rothstein as containing a DO operator and a BECOME operator) are incompatible with punctual clauses/adverbials. This is not straightforwardly predicted by the systems I have examined so far. I return to a discussion of English in Chapter Six.

3.2.3. Summary

A summary of the findings thus far is given in the chart below:

(55) *Accomplishments: initial points*

	Punctual Clauses: readings	Representation	Initial Point	Shift
Accomplishment	inceptive, medial, final	λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]	×	×

Accomplishments are proposed to lack inherent initial points which predicts a lack of inceptive readings with punctual clauses/adverbials. This prediction is only partially borne out as the data in this section shows; inceptive readings are possible, but not the only possible reading (contra activities). Finally, given the simple representation of Sḵwx̱wú7mesh accomplishments as consisting of a series of identical sub-events, I propose that there is no shift operation triggered.

3.3. Sḵwx̱wú7mesh achievements

3.3.1. Sḵwx̱wú7mesh achievements: punctual clauses induce entire event reading

Punctual clauses are compatible with achievements; the readings they yield are what I label "entire event" or instantaneous readings. This is to say that the punctual clause picks out the entire event denoted by the achievement. This is illustrated in the examples below where the available reading is the simultaneous/immediately consecutive reading of the main clause event and the punctual clause event:

(56) a. na tl'iḵ kwa John na7 t-kwi an'us-ḵ
RL arrive DET John LOC OBL-DET two-o'clock
'John arrived at two.'

b. na tl'exwenḵ kwa Peter
RL win DET Peter
kwi s-es mi uys lha Leora
DET NOM-3POSS come inside DET Leora
'Peter won when Leora arrived.'

c. na xwey ta snekwem na7 t-kwi nch'u7-ḵ
RL appear DET sun RL OBL-DET one-o'clock
'The sun rose at one o'clock.'

d. chen tl'exw-et-em na7 t-kwi nch'u7-k
1S.SG beat-TR-PASS LOC OBL-DET one-o'clock
'I got beat at one o'clock.'

Unlike with activities or accomplishments, continuation of the event is not possible; I take this as an indication that the achievement necessarily culminates at the time denoted by the punctual clause. This is illustrated by the example below:

(57) *na tl'ik kwa John na7 t-kwi an'us-k
RL arrive DET John LOC OBL-DET two-o'clock
7iw'ayti na7-xw wa tl'ik
maybe RL-still IMPERF arrive
attempted gloss: 'John arrived at two, maybe he is still arriving.'

The data above suggests that achievements cannot be stretched out in time when they take place at a particular time. As Bennett and Partee (1978) suggest about English, achievements are uttered in the past because once they take place, they have already happened. The same seems to be true for Skwxwú7mesh, though the past tense is not needed here as it is not obligatorily marked in the language. The fact that the event cannot be continued suggests that the achievement cannot be stretched beyond the punctual adverb in the sense that the adverb picks out the entire event and forces it to culminate.

3.3.2. Skwxwú7mesh achievements have intrinsic initial points

I claim that these data provide evidence that the representation of achievements includes only one event, which is both an initial and final point and that this explains why the entire event reading arises. This is to say that the achievement event is "instantaneous", such that picking out a point inside the event that is not the event itself is not possible. The result is not an ungrammaticality but a past culminated reading of the event.

The question is how does the analysis account for this? I, like Rothstein and Dowty, am proposing that an achievement is a basic predicate under a BECOME operator:

(58) *Achievements*

λe.(BECOME(P))(e)

With this analysis, I can explain why the entire event reading seems to be the only reading available for Sḵwx̱wú7mesh achievements with punctual clauses. This definition does not allow any other point in time to be picked out since there are no other points in the representation of the predicate. In the same way that a punctual clause picks out the BECOME sub-event of an activity, the punctual clause also picks out the BECOME of an achievement; the difference between the two predicate classes is that the BECOME of an activity is a sub-event, which required a shift operation to an achievement in order to create a punctual event. On the other hand, an achievement is a punctual event (note that an achievement is the target of the shift of an activity to a punctual event). Thus, the punctual clause targets the BECOME event of the achievement, which is the entire event, with no need for a shift operation.

A summary of this section is given in the table below:

(59) *Achievements: initial points*

	Punctual Clauses: readings	**Representation**	**Initial Point**	**Shift**
Achievement	"entire event" (instantaneous)	**λe.(BECOME(P))(e)**	✓	×

The readings observed with achievements are "entire event" readings where the whole event is picked out by the punctual clause/adverbial. As such, I have proposed that achievement predicates are both initial and final points. As achievements only consist of BECOME events, there is no need for a shift operation to yield the relevant reading with a punctual clause.

3.4. Inchoative states

3.4.1. Sḵwx̱wú7mesh inchoative states: punctual clauses induce inchoative readings

Inchoative states yield both inchoative and stative readings in simple sentences. This is illustrated in the data below:

(60) a. chen t'ayaḵ'
1S.SG angry
(i) 'I got angry/upset.'
(ii) 'I am angry.'

b. chen kw'ay'
1S.SG hungry
(i) 'I got hungry.'
(ii) 'I am hungry.'

c. chen lhchiws
1S.SG tired
(i) 'I got tired.'
(ii) 'I am tired.'

d. na ḵatl'
RL cloudy
(i) 'It got cloudy.'

e. chen ts'ulh
1S.SG cold
(i) 'I got cold.'
(ii) 'I'm cold.'

The addition of punctual clauses or punctual adverbials yields an inchoative reading:

(61) a. chen t'ayaḵ' na7 t-kwi an'us-ḵ /ti natlh
1S.SG angry LOC OBL-DET two-o'clock /DET morning
'I got mad at two o'clock/this morning.'

b. chen kw'ay' kwi-n-s
1S.SG hungry DET-1POSS-NOM
na kw'ach-nexw-an ta sch'exwḵ
RL see-TR(LC)-1S.SG DET fried.food
'I got hungry when I saw the bannock.'

The inchoative reading is the only reading available; in some cases, speakers might offer a non-inchoative translation of the basic form of the predicate as in the data below. However, the fact that the sentence in (a) is incompatible with the overlapping context and that an imperfective sentence is offered as an alternative for context (b) suggests that indeed the inchoative reading is the only reading available with a punctual clause:

(62) a. chen ts'ulh-um kwi s-es k̲en'p ta snek̲wem
1S.SG cold-INTR DET NOM-3POSS set DET sun
'I felt cold when the sun went down.'
✓Context 1: could I have been warm before, while the sun was still up? "yes"
×Context 2: could I have already been cold before the sun went down? no

b. chen wa ts'u-ts'ulh-um
1S.SG IMPERF REDUP-cold-INTR
kwi s-es k̲en'p ta snek̲wem
DET NOM-3POSS set DET sun
'I felt cold when the sun went down.', 'I was already feeling cold when the sun went down.'

Further evidence of the inchoative reading available with punctual clauses arises in short conversation sequences. In the examples below, a sentence containing an achievement predicate sets the context, and is then followed by the question 'what happened'. The third sentence in the sequence contains a bare inchoative state. In both cases, the state is interpreted as an inchoative:

(63) A: chen mu7-nexw ta lapat.
1S.SG drop-TR(LC) DET cup
'I dropped the cup.'

B: na7 shan?
'What happened?'

A: na t'ayak̲' kwa John
RL angry DET John
'John got mad.'

(64) A: chen kw'ach-nexw ta sk̲'ey'
1S.SG look.at-TR(LC) DET smoked.salmon
'I saw the smoked salmon.'

B: na7 shan
'What happened?'

A: ses men i kw'ay'
then just PART hungry
'then I got hungry.'

3.4.2. Sk̲wx̲wú7mesh inchoative states have intrinsic initial points

I propose that the fact that punctual clauses/adverbials yield inchoative readings with these predicates in Sk̲wx̲wú7mesh suggests that they have initial points as part of their meaning. This allows for the punctual clause to pick out that point. The representation for inchoative states is given again below:

(65) *Inchoative States*

$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1)} \wedge P(e_2)]$

As with activities, since the inchoative state itself is not a punctual event, a shift operation is necessary in order to shift the non-punctual event to a punctual event when they are modified by punctual events in the perfective. A representation is given below:

(66) SHIFT $(\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge (P)(e_2)]) \rightarrow$

$= \lambda e.(BECOME\ (P))(e)$

A summary of the results is given in the table below:

(67) *Inchoative States: initial points*

	Punctual Clauses: readings	**Representation**	**Initial Point**	**Shift**
Inchoative State	inchoative	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))(e_1)** $\wedge P(e_2)]$	✓	✓

3.5. Summary and a cross-Salish comparison

In this section, I have argued that the results of the punctual clause/adverbial diagnostic provide evidence for the presence/absence of initial BECOME events in the representations of Sḵwx̱wú7mesh predicates. In particular, I show that the readings induced by punctual clauses/adverbials can be predicted if we assume the proposed structures. A summary of the readings and the proposed representations is given in the chart below:

(68) *Inchoative States: initial points*

	Punctual Clauses: readings	**Representation**	**Initial Point**	**Shift**
Activity	inceptive	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))(e_1)** $\wedge$ (DO(P))(e_2)]	✓	✓
Accomplishment	inceptive, medial, final	$\lambda e.$[DO(P))(e) $\wedge$ [$\forall$w' [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists$e' [culminates (e') in w' $\wedge$ e causes e' in w']]]]	×	×
Achievement	"entire event" (instantaneous)	**$\lambda e.$(BECOME(P))(e)**	✓	×
Inchoative State	inchoative	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))(e_1)** $\wedge$ P(e_2)]	✓	✓

As the chart above illustrates, shift operations are only required for activities and inchoative states, which both have very similar representations. That is, both predicates have two sub-events, with the initial sub-event of each of them being an initial BECOME event. To conclude this section, I briefly discuss some cross-Salish data.

Kiyota (2005) shows that in Sənčáθən, a related Coast Salish language, when states (possibly stage-level states only) appear in what looks like a progressive form (or *actual aspect* in Montler's (1986) terms), they contrast with basic predicates in a way similar to what I have said for Sḵwx̱wú7mesh. The data below show that the basic form of *t'ə́y'əq* 'angry' yields an inceptive or stative reading with the addition of a punctual clause (a) while the CV reduplicated form (one of the three allomorphs for the progressive in Sənčáθən) indicates a stative reading where the state was already taking place by the time the punctual clause occurs:

(69) a. t'áy'əq tə jack kɬ tálnəx^{w}s tə sk^{w}álk^{w}əl
be/get mad DET Jack REAL find.out DET news
'He was/got mad when he found out the news.'

b. kɬəw' t'ət'áy'əq tə jack
already RED-be/get mad DET Jack
ʔiʔ tálnəx^{w}s tə sk^{w}álk^{w}əl
ACC find.out DET news
'He was already mad when he found out the news.'
(Kiyota 2005: 4, ex. 4)

The same facts are shown by the data below where in (a) the basic form has an inchoative or stative reading, the glottalized form in (b) (another progressive allomorph) indicates that the state is already underway by the time the punctual clause takes place:

(70) a. ɬčík^{w}əs sən
be/get tired 1sg.SUB
'I am/got tired.' (situation: I am walking, and tell you ....)

b. ɬčíw'əs sən
be/get tired.ACT 1sg.SUB
'I am already tired.' (situation: I am sitting here already tired and say to you)"
k^{w} → w' (probably actual aspect = glottalization of non-initial resonants)
(Kiyota 2005: 4, ex. 5)

The same facts seem to hold in St'át'imcets as well. The data below show that at least some St'át'imcets predicates that correspond to what I label "inchoative states" in Skwxwú7mesh can also be interpreted as inchoatives, at least in certain contexts. The initial sentence sets up the context, and the second sentence asks 'what happened'. The bare form of the predicate is interpreted as an inchoative.

(71) a. ka kwí-s-ts-=kan-a ta lháxtsa. kánem aylh? qlil kws John
'I (accidentally) dropped the dish. What happened? John got angry'
Speaker's comments: "He got angry] because you dropped a dish"

b. ílhen=lhkan i=t'áq'em'kst=as. kánem aylh? guy't-ál'men=lhkan
'I ate at six. what happened? I got sleepy'

c. átsx'-en=lhkan ta=sk'ák'y'et=a. kánem aylh? páqu7=lhkan
'I saw the spider. now what? I got scared'

d. ka-cwál'-s=kan=a ta=mik'il-áw's-cen=a. kánem aylh? táyt=lhkan
I smelled the bannock. I'm hungry.
Speaker's comments:[As an answer to: 'Did I get hungry because I smelled the bannock?'] "Sounds like it, yeah. nilh [and then] nstayt"

However, the inchoative reading is not the only one available for these predicates in St'át'imcets. Davis (in prep) notes that St'át'imcets speakers comment that "*Táytlhkan* is a statement, means you're telling somebody you're hungry, so they automatically offer you something to eat."

In the following section, I turn to the second diagnostic used in this chapter to argue for the presence/absence of initial points: the readings induced by the auxiliary *mi* 'come'.

4. Test 2: the readings induced by the auxiliary *mi*

I argue in this section that the readings induced by the addition of the auxiliary *mi* provide further evidence for the presence/absence of initial points in the proposed predicate representations. In particular, I argue that *mi* targets the initial point of a predicate, and in more specific terms, the initial BECOME event. The readings observed are summarized in the table below:

(72) *Claims: auxiliary* mi

	Readings with auxiliary *mi*	**Initial Point**
Activity	inceptive/directional	✓
Accomplishment	*/directional	×
Achievement	entire event	✓
Inchoative States	inchoative	✓

I begin by looking at activities.

4.1. Activities

mi induces two different readings with Skwxwú7mesh activities: (i) an inceptive reading and (ii) a directional reading. The data below illustrates some examples of the inceptive reading:

(73) a. na **mi** lhétxem ta John
RL come shiver DET John
'John started to shiver.'

b. na **mi** xay-m ta John
RL come laugh-INTR DET John
'John began/started to laugh.'

c. na **mi** xaa-m ta John
RL come cry-INTR DET John
'John started to cry.'

d. chen **mi** nekw-em
1S.SG come move-intr
'I started to move.'

e. na **mi** itut
RL come sleep
'He started to sleep.', 'He must have fallen asleep.'

f. na **mi** imesh ta John
RL come walk DET John
'John went walking/for a walk.'

g. na **mi** exwu7n lha Mary
RL come cough DET Mary
'Mary started to cough.'

With some speakers *mi* can only yield a directional reading with activities:[22]

(74) a. na **mi** kway ta sta7uxwlh
RL come hide DET children
'They came to hide.'

b. na **mi** shupn lha Carrie
RL come whistle DET Carrie
(i) 'She came to whistle.'
(ii) * 'She started to whistle.'

[22] Although the speakers used pronouns in their translations for these sentences, the sentences can also be translated with 'The children' in (a) and 'Carrie' in (b-c).

c. na **mi** shu-shpn lha Carrie
RL come REDUP-whistle DET Carrie
'She came whistling.'

d. na **mi** paym kwa John
RL come rest DET John
'John came to rest.'
✓Context: was John somewhere else? "could be"
Speaker's comments: "He might have been working and he got tired"

With one speaker, the two different readings were accepted:

(75) chen **mi** lulum
1S.SG come sing
(i) 'I started to sing.'
(ii) 'I came to sing.'

Recall from the previous section that when an activity clause is modified by a clause containing a punctual predicate, the two events are interpreted as consecutive; this is illustrated again by the data below where the speaker's comments suggest that the reading of the sentence is inceptive:

(76) chen xay-m kwi-n-s kw'ach-nexw kwa John
1S.SG laugh-INTR DET-1POSS-NOM see-TR DET John
'I laughed when I saw John.'
Speaker's comments: It's because you saw John that you started to laugh

Thus the punctual clause picks out the initial point of the event that is part of the basic meaning of the predicate. Under this proposal, activities with punctual clauses (as I show for achievements) are expected to have inceptive readings regardless of the presence of *mi* since *mi* picks out the same point that the punctual clause does with activity predicates. This is exactly what is observed:

(77) chen **mi** xay-m kwi-n-s kw'ach-nexw kwa John
1S.SG come laugh-INTR DET-1POSS-NOM see-TR DET John
'I began to laugh when I saw John.'

I suggest that for activity predicates, the inceptive reading is available because the initial point is part of the meaning of the predicate. As in the previous discussion on punctual clauses, the suggestion that the auxiliary *mi* is introducing the initial point of the predicate is not a possible analysis as inceptive readings are observed even without *mi*.[23]

These data provide further evidence for the proposed representation of Sḵwx̱wú7mesh activities (shown below): activities have initial BECOME events:

(78) *Activities*

$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1)} \wedge (DO(P))(e_2)]$

A summary of the results is given in the chart below:

(79) *Activities: Initial points*

	Readings with auxiliary *mi*	**Representation**	**Initial Point**
Activity	Inceptive Directional	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))(e_1)** $\wedge$ (DO(P))(e_2)]	✓

The auxiliary *mi* targets the initial BECOME event of the activity, yielding an inceptive reading of the predicate. However, as I have shown, activities also get a directional reading when combined with *mi*. For these readings, it is not the case that *mi* targets the initial point, but rather it contributes an additional meaning to the sentence. I pick this up again in the next section where I discuss accomplishment predicates.

4.2. Accomplishments

When *mi* combines with accomplishments, they together yield a complex predicate reading that has a directional meaning, whereby the subject of the sentence 'comes to x'. Crucially, accomplishments do not have inceptive readings when they combine with *mi*. This is illustrated by the data below:

[23] This contrasts with St'át'imcets where *ts7as* 'come here' can only have an inceptive reading when it combines with "true change of state predicates" (H. Davis, p.c.).

(80) a. na **mi** teh-im' ta lam' ta John
RL come make-INTR DET house DET John
'John came to make a house.'

b. na **mi** p'ayak̲-an ta tetxwem
RL come fix-TR DET car
'He came to fix the car.'
speaker's comment: "he was somewhere else and he came to fix it"

c. chen **mi** p'ayak̲-an ta snexwilh
1S.SG come fix-TR DET canoe
(i) 'I came to fix the canoe.'
(ii) * 'I began to fix the canoe.'

d. chen **mi** sat-shit ta tala tay'
1S.SG come give-TR DET money DEM
'I came to give him money.'

e. na **mi** mikw'-int-as ta lhx̲enptn lha Mary
RL come wash-TR-3ERG DET floor DET Mary
(i) 'She came to wash the floor.'
(ii) * 'She started to wash the floor.'
Speaker's comments: [When asked whether she could have just started] "She already washed it"

f. na **mi** yetl'k̲'-ant-as ta lam' ta John
RL come paint-TR-3ERG DET house DET John
(i) 'He came to paint the house.'
(ii) * 'He started to paint the house.'
Speaker's comments: "Your words are 'He CAME..'"

g. chen **mi** yetl'k̲'-an ta lam'
1S.SG come paint-TR DET house
'I came to paint the house.'
Speaker's comments: (Could it mean you started to paint the house?) "No, you CAME to"

h. na **mi** pen-t-as ta shaw' ta sk̲wemay'
RL come bury-TR-3ERG DET bone DET dog
'The dog came to plant the bones.'

i. na **mi** pen-t-as ta shaw' ta sk̲wemay'
RL come bury-TR-3ERG DET bone DET dog
welh haw k̲-as huy-nexw-as
CONJ NEG IRR-3CNJ finish-TR(LC)-3ERG
'The dog came to plant the bones but he didn't finish.'
✓Context: he came and started but didn't finish
✓Context: he came but decided it wasn't a good spot and then left

j. chen **mi** p'ats'-an ta hem'ten
1S.SG come sew-TR DET blanket
'I'm coming to sew the blanket.'

k. chen **mi** ch'aw-at lha-n chesha7
1S.SG come help-TR DET-1POSS mother
'I came to help my mother.'

With some accomplishments, adding *mi* is simply ungrammatical, that is, neither the inceptive, nor the directional reading is available:

(81) *chen **mi** k̲ep'-et ta shewálh
1S.SG come close-TR DET door
Speaker's comments: "Doesn't make a proper sentence"

I take the data above to suggest that the speaker allows only the directional reading as a possible gloss of the sentence with *mi*, not the inceptive reading. Thus, the fact that the sentence is ungrammatical is due to the fact that the directional reading would be strange, or rather, that the context is not sufficient for a directional reading for the speaker. If the inceptive reading were available, we would not expect the sentence to be ungrammatical. It is expected that under a pragmatically plausible context, this sentence would be acceptable under the directional reading.

The addition of *mi* with accomplishment predicates provides a directional meaning to the sentence which parallels the reading that *mi* gets when it surfaces as a main verb. I argue that the fact that *mi* does not induce an inceptive reading with accomplishments is further evidence that accomplishments have no initial points as part of their basic meaning. The structure I have proposed for Sk̲wx̲wú7mesh accomplishments accounts for these facts as there is no initial (or BECOME) event:

(82) *Accomplishments*

λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]

The facts so far are summarized in the chart below:

(83) *Accomplishments: Initial points*

	Readings with auxiliary *mi*	**Representation**	**Initial Point**
Accomplishment	* directional	λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]	✗

This analysis forces me to claim that *mi* cannot introduce an initial point to a predicate that is not present in its basic form. If it could, accomplishments introduced with *mi* should yield an inceptive reading since the lack of an initial point in the predicates basic form would not be relevant. However, the fact that accomplishment predicates can NEVER yield inchoative readings, even with speakers who allow the inceptive reading with activity predicates, reinforces the claim that *mi* cannot introduce an initial point Thus, *mi* contributes some external meaning to the predicate, namely 'come', yielding a complex reading 'come to x' just like the reading of *mi* as a main predicate. This further suggests that *mi* not only looks for the beginning point of an event, but specifically, *mi* looks for an initial BECOME sub-event.

4.2.1. Speaker variation

Speaker variation is mainly observed with activity predicates: some speakers allow the inceptive reading, while others allow the directional reading only. Crucially, there are no cases where speakers allow the inceptive reading for accomplishments, even those speakers who allow inceptive readings for activities. Furthermore, while the directional reading is available with accomplishments for all speakers, with activities, the speakers that allow for the inceptive reading seem to offer only the inceptive reading (with one exception).

An additional question arises here as to whether the contrast between activities and accomplishments combined with *mi* is a result of aspect (i.e. the interaction between *mi* and

different predicate classes) or whether this is a result of transitivity. To answer this question, the crucial place to look is transitive activities as they may be assumed to be members of the class of activities, but also have control transitive marking as accomplishments do.[24] Consider the following examples of predicates that are marked with a control transitivizer (like accomplishments) but could also be considered to be activities as they share similar meanings. When they combine with *mi*, they yield directional readings, not inceptive readings:

(84) a. na mi tselk̲w'-ant-as ta k̲'iyáx̲an ta stek̲iw
RL come kick-TR-3ERG DET fence DET horse
'He/The horse came and kicked the fence.'

b. chen mi xwukw'-en ta stsek̲
1S.SG come pull-TR DET log
'I came to pull a stick.'

c. na mi x̲ik̲'-int-as ta hem'ten ta push
RL come scratch-TR-3ERG DET blanket DET cat
'The cat came to scratch the blanket.'

d. chen mi ts'iyikw'-in ta-n mek̲sen
1S.SG come pinch-TR NOM-1POSS nose
'I came to pinch my nose.'

e. chen mi tats-an ta push
1S.SG come pet-TR DET cat
'I came to pet the cat.'

As for what these data actually tell us, it is not quite clear for a couple of reasons. First, the speakers who offered these sentences are among those who do not allow inceptive readings for activities with *mi*; thus, it would not be possible to know whether speakers are treating these predicates as activities or accomplishments based on this test, since these speakers treat both predicate classes in the same way. Second, it has not yet been established whether the class of transitive activities behave as transitive achievements (as they have been argued to in St'át'imcets; see Matthewson 2004), as the data are too inconsistent to generalize. If it is the case that these are transitive achievements, the relationship between control marked

[24] Matthewson (2004) argues that transitive activities in St'át'imcets are all transitive achievements and are

accomplishments and control marked achievements needs to be further explained. Davis (2005, class notes) suggests that in some cases, the control properties of a predicate cannot always be straightforwardly explained by the shape of the transitivizer and must be treated idiosyncratic in their choice of transitivizer. I apply this same line of argumentation here. I propose that the behaviour of accomplishments with respect to *mi* is a result of aspectual differences (that are nevertheless related to transitivity, as accomplishment are marked by control transitivizers). The contribution of transitive activities to this debate is left for further research.[25]

A remaining question is why *mi* cannot target the first sub-event of the accomplishment, which can be identified as an initial point? Recall that in the previous section on punctual clauses/adverbials, the analysis led us to say that the initial points of accomplishment predicates are defined by the fact that they have no other sub-events that precede them. So why then can THESE initial points not be targeted by *mi*? I suggest that these sub-events are initial points by default, rather than being a dedicated initial point. That is to say, those sub-events that are initial points could have easily NOT been initial points whereas the initial BECOME event of an activity, for example, is by definition an initial point.

I turn now to the behaviour of achievements combined with *mi*.

4.3. Achievements

Recall that sentences with achievement predicates in their basic forms entail culminated events. When *mi* combines with achievements, in some cases the meaning of the basic verb form is unchanged by the addition of *mi*; that is, they also denote culminated events. This is illustrated below:

(85) a. na tl'ik ta John kwi chel'aklh
RL arrive DET John DET yesterday
'John came/arrived yesterday.'

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aspectually parallel to predicates such as 'hit' in the language.

[25] It would be relevant to look at other transitive activities that cannot necessarily be interpreted as punctual (e.g., follow x or hear x). As I have not yet elicited these data, I will have to leave this for further research.

b. na **mi** tl'ik̲ ta John kwi chel'ak̲lh
RL come arrive DET John DET yesterday
'John came/arrived yesterday.'

(86) a. chen kw'elh ta stak̲w
1S.SG spill DET water
'I spilled the water.'

b. chen **mi** kw'elh ta stak̲w
1S.SG come spill DET water
'I spilled the water.'
Speaker's comments: "It's the same as the other one [without mi]"

(87) a. na xwey ta swi7k̲a
RL appear DET man
'The man appeared.'

b. na **mi** xwey ta swi7k̲a
RL come appear DET man
'The man appeared.'

(88) a. na lhx̲ilsh ta John
RL stand.up DET John
'John stood up.'

b. na **mi** lhx̲ilsh ta John
RL **come** stand.up DET John
'John stood up.'

(89) a. chen wi7xw-em
1S.SG fall-INTR
'I fell (from above).'

b. chen **mi** wi7xw-em
1S.SG **come** fall-INTR
'I fell down.'

Typically when you walk into a room you say the following:[26]

[26] H. Davis (p.c.) suggests that in St'át'imcets, the equivalent sentence containing *ts7as* "come here" would be ungrammatical; this is due to the fact that *ts7as* is necessarily atelic, whereas *t'iq* "arrive here" is necessarily telic.

(90) chen **mi** tl'ik̲
1S.SG **come** arrive
'I (have) arrived.'

In some cases, however, sentences containing *mi* and achievement predicates are translated as "did x" or "already x":

(91) a. chen mekw'-em ta tala
1S.SG find-INTR DET money
'I found some money.'

b. chen **mi** mekw'-em ta tala
1S.SG **come** find-INTR DET money
'I did find some money.'

(92) a. chen suxwt-nexw lha Linda na7 ta book
1S.SG recognize-TR(LC) DET Linda LOC DET book
'I recognized Linda in the book.'

b. chen **mi** suxwt-nexw lha Linda na7 ta book
1S.SG **come** recognize-TR(LC) DET Linda LOC DET book
'I already recognized Linda in the book.'

I take the glosses of the data above to be an indication that the speaker adding emphasis to the completion of the event already denoted by the predicate without *mi*. This suggests that completion is already associated with the basic meaning of the predicate and that the addition of *mi* to achievements also focuses on the completion of the event.

Unlike accomplishments where *mi* provides a directional reading of the predicate, or activities where *mi* provides an inceptive reading of the predicate, with achievement predicates, the entire event is picked out by *mi*. This parallels what is observed for achievement predicates with punctual clauses in the previous section, namely that the punctual clause picks out the entire event.

A related issue is the extent to which the directional nature of the auxiliary can have an effect on a predicate, even if there is no intended direction. Consider the following Sk̲wx̲wú7mesh predicate *tsixw* 'reach'. This predicate is predicted to yield a grammatical sentence with *mi* and as with other achievements, be translated the same, or have an emphatic

meaning of some sort. This, however, is not the case as the sentence was rejected by the speaker, as shown in (b) below:

(93) a. chen tsixw ta ayalhkw
1S.SG reach DET beach
'I reached the beach.'

b. *chen mi tsixw ta ayalhkw
1S.SG come reach DET beach

L. Matthewson (p.c.) indicates that in St'át'imcets, the cognate verb *tsicw* means 'get there' and is used only for actions in the past that are "going away from the speaker". This might explain why the Skwxwú7mesh data in (b) is ungrammatical as well, and further why the speaker offers the following sentence containing the auxiliary *nam'* go' instead:[27]

c. chen nam' tsixw ta ayalhkw
1S.SG go reach DET beach
'I reached the beach.'

In summary, achievements combined with *mi* yield readings that are not that different from sentences without *mi*, that is, a completed event; in some cases, *mi* adds emphasis to that completion and sentences are translated as such. These results are summarized in the chart below:

(94) *Achievements: Initial points*

	Readings with auxiliary *mi*	**Representation**	**Initial Point**
Achievement	Entire event	λe.(**BECOME(P)**)(e)	✓

I have shown in this section that achievements differ from activities and accomplishments in that they have emphatic readings with *mi*; they also differ from activities in not having inceptive readings with *mi*.

[27]Davis (in prep) claims that there is a cross-classification of direction and telicity in St'at'imcets. I have only examined the auxiliary *mi* in any detail and thus cannot comment further on the same classification in Skwxwú7mesh.

A remaining question is whether the directional reading is available with achievements in the same way as with activities and accomplishments. If examples such as the following are considered achievements, then I would conclude that achievements in Sḵwx̱wú7mesh do have directional readings with *mi*:[28]

(95) na **mi** tselkw'-ant-as ta ḵ'iyáxan ta stek̲iw
RL come kick-TR-3ERG DET fence DET horse
'He/The horse came and kicked the fence.'

4.4. Inchoative states

Recall that inchoative states have inchoative or stative readings in their basic form. When *mi* combines with inchoative states, the inchoative translation is the only one available. This is shown below:

(96) a. chen **mi** t'ayak̲'
1S.SG come angry
'I got angry/upset.'

b. chen **mi** kw'ay'
1S.SG come hungry
'I got hungry'
'I'm getting hungry.'
* 'I am hungry.'

c. chen **mi** lhchiws
1S.SG come tired
'I got/became tired.'

d. na **mi** ḵatl'
RL come cloudy
'it's getting cloudy'
'It got cloudy.'

e. chen **mi** ts'ulh-um
1SUB.SG come cold-INTR
'I'm getting cold.'

[28] This issue is more complicated than presented here, as these are considered transitive activities. There is an additional question as to whether activities that have clear individual sub-events (that are also punctual) are shifted to the structure of achievements in these cases (see Chapter Six for some discussion). This issue is beyond the scope of this thesis, and thus is left for further research.

I take the data above to provide further evidence for the proposal that inchoative states have initial points as part of their representation. Their structure is given again below:

(97) *Inchoative State*

$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1)} \wedge P(e_2)]$

An inchoative reading is correctly predicted given that *mi* targets the initial point of the predicate. These predicates are parallel to activities in this way.

A summary of the findings for inchoative states is given in the chart below:

(98) *Inchoative states: Initial points*

	Readings with auxiliary *mi*	**Representation**	**Initial Point**
Inchoative state	inchoative	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))(e_1)** $\wedge P(e_2)]$	✓

As with achievements, it is necessary to ask why inchoative states do not have directional readings when they combine with *mi*. Intuitively, this would be strange since inchoative states do not involve volition whereas "come" does. So it might be the case that these readings are absent because the volition component of *mi* is incompatible with the volition component of an inchoative state. However, it may be the case that the directional reading can surface in a different way. Consider the data below where the inchoative state *ch'i7xw* 'dry' yields a different reading when combined with mi (b):

(99) a. na ch'i7xw ta sts'ukwi7
RL dry DET fish
'The fish is dry.'

b. na **mi** ch'i7xw ta sts'ukwi7
RL **come** dry DET fish
'It came dry.'
Speaker's comments: "If it was coming down the river, maybe...give it something to drink..."

This reading might be considered a type of directional meaning, but one that differs from the previous directional readings. Whereas an accomplishment is translated as "come to X", with the meaning of something like "come in order to X", the inchoative states have a reading of the type "X was of a particular state when it came".[29]

4.5. Summary

In this section, I have argued that the readings induced by the addition of the auxiliary *mi* provide further evidence for the proposed representations of Sḵwx̱wú7mesh predicates. In particular, I have shown that these readings motivate the presence/absence of initial BECOME events in the predicate representations. A summary is presented in the chart below:

(100) *Sḵwx̱wú7mesh predicates: Initial points*

	Readings with auxiliary *mi*	**Representation**	**Initial Point**
Activity	inceptive directional	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))(e_1)** $\wedge$ (DO(P))(e_2)]	✓
Accomplishment	* directional	$\lambda e.$[DO(P))(e) $\wedge$ [$\forall$w' [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists$e' [culminates (e') in w' $\wedge$ e causes e' in w']]]]	✗
Achievement	entire event	$\lambda e.$**(BECOME(P))(e)**	✓
Inchoative State	inchoative	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))(e_1)** $\wedge$ P(e_2)]	✓

To conclude this section, I turn to a brief look at similar auxiliaries across-Salish.

Kroeber (1999) states that "verbs of motion ('come', 'go') are found as auxiliaries in most of Coast Salish, Lillooet and Thompson" (p. 53). Czaykowska-Higgins and Kinkade (1998) report that "'Come' and/or 'go' may be used as auxiliaries but do not occur as such in most languages of the family" (p. 35).

[29] It is also not clear why the inchoative reading is unavailable for either the basic form and the form with *mi* in this example. This may be a result of the elicitation context and the fact that the form with *mi* was elicited after the basic form which was translated in a certain way.

The relation of auxiliaries such as *mi* in Sḵwx̱wú7mesh to aspect has been noted in the literature on other Salish languages. Galloway (1993) suggests that in addition to the directional meaning where, as one speaker notes "you have to come to do the action", *mə* in Upriver Halkomelem has an inceptive interpretation in the sense of 'come to pass, become' (p. 359). The following data are taken from Galloway (1993: 360):[30]

(101) a. cəl mə t'ák'^{w}
'I came home.'

b. mə ɬɛ́lətəm tə sɬə́məx^{w}
'(The rain is) starting to sprinkle (come splashing).'

c. mə p'ə́k^{w}
'rise/come to the surface (come float)'

d. mə k'^{w}ə́cləx^{w}
'catch sight of something'

e. mə p'ə́ɬ
'sober up ("come to be sober")'

Van Eijk (1997) notes that verbs of motion may also function as auxiliaries in St'át'imcets and they seem to exhibit a 'get/become' reading. Davis (in prep) refers to *ts7as* as a motion verb and reports that in addition to being used to indicate the passage of time (specifically, a non-culminated event), "ts7as has the added implication that the process it refers to is just beginning", as is shown in the examples below:

(102) a. **Ts7a*s*** má7eg'
come dawn(inch)
'Dawn is breaking.'

b. **Ts7as** ts'ikt ta q'.wúsa...
come go.out det stump-det
'The stump was beginning to go out...'

c. Lan wa7 **ts7as** k'úl'el' ti súspa7s-a.
Already imperf come grow-final.redup det tail-3sg.poss-det
'Its tail has already started to grow.'

[30] See also Gerdts (1988).

To conclude this chapter, I explore some alternative explanations of the Sḵwx̱wú7mesh facts discussed.

5. Some alternative analyses

5.1. Initial points are introduced by the perfective

Another possible analysis of data such as those introduced in this section is that initial points are not part of the basic meaning of activities but are introduced by perfective aspect (Roumyana Pancheva, p.c.). She suggests that in Greek and Bulgarian, for example, states and activities get inchoative readings in the perfective.[31] While this may seem like a plausible avenue of analysis, I argue that this is not the ideal way to capture the facts for two reasons. First, this analysis does not rid us of a problem, but simply introduces another one. This is to say that while saying that the perfective introduces the initial point allows us to preserve Rothstein's templates and extend them to Sḵwx̱wú7mesh, it raises the question of why this would be the case, and more importantly, why the perfective does this with Sḵwx̱wú7mesh activities, but not with Sḵwx̱wú7mesh accomplishments.

Second, such an analysis proposes a very different way of looking at the perfective and events themselves. The perfective simply puts the event time inside the reference time and the consequence of this is that all parts of an event are seen with the perfective (beginning, middle, end), it doesn't say anything about providing an initial or final point to the predicate. The notion of what is meant by perfective would have to be altered in order to account for this; while the perfective has been argued to behave differently across languages (see Koenig and Muansuwan 2000 and Singh 1998, as well as Chapter Four for discussion) with respect to completion/culmination, it is necessary to assess whether the same is true for initial points, and furthermore, changing the meaning of the perfective in this way must be motivated. Moreover, analyzing the initial points as being introduced by the perfective implies that an event on its own has no initial point, but that some higher aspectual head provides it. This would suggest that in the case of imperfective aspect, although it is true that

[31] Greek is claimed not to have a "perfective" but that this is exhibited in the aorist aspect: *eploútesa* (aorist) 'I became rich' vs. *eploútoun* (imperfect) 'I was rich' (Binnick 1991: 60). With respect to Bulgarian, Aronson (1985) suggests that "the 'perfective' seems to present an invariant meaning (expressing the action as a total event summed up with reference to a single specific juncture)" (p. 276).

initial and final points are not "seen" since the reference time is inside the event time, it would actually be the case that there were no initial points at all, even outside the reference time.

Consider the example above repeated below:

(103) a.

chen	xay-m	kwi-n-s	kw'ach-nexw	kwa	John
1S.SG	laugh-INTR	DET-1POSS-NOM	see-TR(LC)	DET	John

'I laughed when I saw John.'
Speaker's comments: It's because you saw John that you started to laugh[32]

The sentence involves an activity predicate and an achievement predicate. The event time of the achievement predicate coincides not with the entire event time of the activity, but with the initial point of the activity, the BECOME sub-event. The reference time of both events is the same (here, it is vague in being simply some past time before now); crucially, given that both sentences are perfective, the event time of each event is contained within the reference time. This is schematically illustrated below[33].

[32] H. Davis (p.c.) suggests that the temporal sequencing may be a result of the causal relation between the two clauses. However, there are examples such as the following (with a punctual adverbial), where there is no apparent causal relationship:

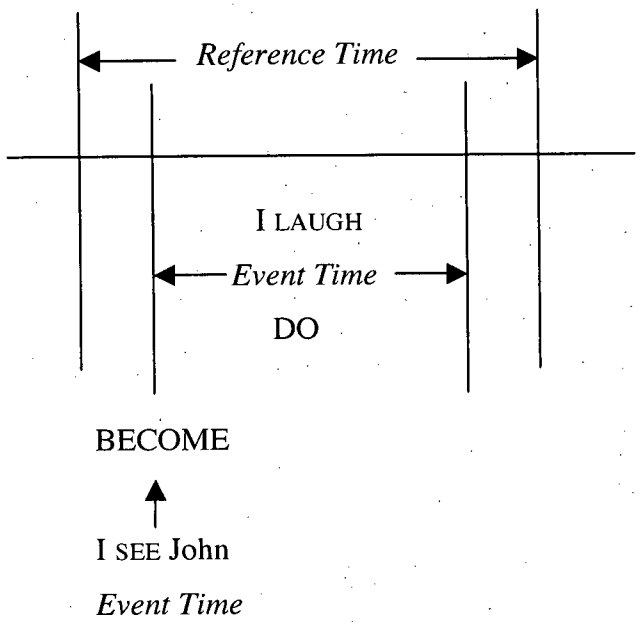
(i)

na	**itut**	ta	John	na7	ta	an'us-k
RL	**sleep**	DET	John	LOC	DET	two-o'clock

'John fell asleep at two.'

[33] This is a simplified schema of the BECOME sub-event. See Dowty (1979:140) for a more detailed illustration. The crucial difference is that in Dowty's schema, in order to identify the BECOME sub-event, there must be two states: one state where not P holds and another where P holds. In (104) above I have shown only the interval that is classified as the BECOME event.

(104) *Activity + punctual clause*



5.2. The sub-interval property: are activities homogenous?

B. Partee (p.c.) suggests that the contrast between activities and accomplishments argued for in this chapter with respect to inceptive readings is due to the *sub-interval property*. Bennett and Partee (1978) propose that atelic predicates (activities) have the subinterval property, but telic predicates (accomplishments) lack it. A definition is given below:

(105) *Subinterval Property* (Bennett and Partee 1978)
If a sentence is true at an interval of time *I*, then it is true at every subinterval of I including every moment of time in *I*.

This property is meant to capture, for example, the distinction between activities and accomplishments. Take the following sentences for example:

(106) a. John walked in the park for an hour. (activity)
b. John built a house in two months. (accomplishment)

If the sentence in (a) is true, then at any moment during that hour it is true that *John walked.* If the sentence in (b) is true, *it is not the case* that at any moment during those two months it is true that *John built a house.*

Partee proposes that it is the fact that activities have the sub-interval property that allows any interval to be picked out by the punctual clause. Accomplishments lack the sub-interval property thus there is no one interval that can be picked out by the punctual clause. However, a well-known problem with the subinterval property is that with respect to activities, it applies only to progressives (Bach 1981). Assuming that the reportative present in English picks out instantaneous moments (see Binnick 1991, for example), it remains to be explained why it is the case that if English activities have the subinterval property, they must be expressed in the present-progressive (a), as opposed to the simple present (b):

(107) *Context: John is in the midst of laughing*

a. John is laughing.

b. # John laughs.

My proposal can solve this problem with the sub-interval property. Recall the structures proposed for Sḵwx̱wú7mesh activities:

(108) *Sḵwx̱wú7mesh activities*

$\lambda e.\exists e_1 \exists e_2 [e =^{s} (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$

Activities, by this representation, do not have the sub-interval property. Analyzing English activities in the same way, that is, as having initial BECOME sub-events, solves the problem with the sub-interval property; it is not expected to apply to activities since they are not homogenous. This issue is picked up again in Chapter Six where I discuss the English facts in more detail and motivate the claim that English activities indeed have initial points.

Thus, I argue that appealing to the sub-interval property is not the right line of argumentation since this property cannot itself explain the facts. Second, the problem with Partee's explanation is that it only accounts for half the facts; that is, the sub-interval property does explain why the inceptive reading is available for activities and not for

accomplishments; however, this account would predict that a medial or terminated reading for activities should be available since the sub-intervals of an activity are all identical. This is not the case in English, as the inceptive reading is the only reading available with punctual clauses (with the exception of the instantaneous reading, which is not relevant here; see Chapter Six). This would force us to stipulate why the inceptive reading is the only reading available for activity predicates, which is not a desired result. My analysis straightforwardly explains why the inceptive reading is the only reading for activities (in English and in Sḵwx̱wú7mesh).

5.3. Sḵwx̱wú7mesh accomplishments do have initial points

H. Davis (p.c.) suggests an alternative where (i) ALL eventive predicates must have initial points and (ii) *when*-clauses always have a successive reading with perfective aspect. An alternative along these lines was suggested in Smith (1997) where she claims that both accomplishments and activities (for Smith, this would be the class of durative dynamic predicates) contain natural initial points. In her words, "the initial endpoints of events represent a change from a state of rest" (p. 22). Neither of these alternatives, however, explains why activities and accomplishments behave differently with respect to the addition of a punctual *when*-clause or a punctual adverb; that is, it does not account for the fact that activities have inceptive readings with punctual clauses and adverbials while accomplishments have inceptive, medial and culminating readings in these contexts.

To address this problem, H. Davis (p.c.) argues that the difference between the two predicate classes is due to the fact that accomplishments have a more complex representation than activities. He suggests that if accomplishments have initial points and final points, this will explain the inceptive and culminating readings. As for the medial reading, he proposes that it occurs when the culmination implicature fails to hold. There is one crucial problem with this analysis: it does not account for all the facts. If I were to claim that accomplishments had initial BECOME sub-events as part of their representations, I could then account for the inceptive and culminating readings that result when accomplishments are modified by punctual clauses, and the inceptive readings that are observed with activities. The problem, however, lies with the medial reading that is observed with accomplishments, but not activities. True, the medial reading is accounted for accomplishments in contexts

where the culmination implicature fails to hold. However, activities would also be predicted to have medial readings, which they do not:

(109) a. na **shupn** lha Carrie
RL **whistle** DET Carrie
kwi s-es tin-tin ta new'tstn
DET NOM-3POSS REDUP-ring DET phone
'Carrie whistled when the phone rang.'
*Context: Carrie was whistling
Speaker's comments: "You said whistled ...shushpn [reduplicated form] is for whistling"

b. chen **lulum** kwi s-es tl'ik' ta John
1S.SG **sing** DET NOM-3POSS arrive DET John
'I sang when John got here.'
*'I was singing when John got here.'

Thus, to adopt this analysis, some additional proposals would have to be put forth.

To close this section, I address Davis's concern that the claim that Skwxwú7mesh activities have initial points and accomplishments do not is counter-intuitive. From the point of view of languages like English, where accomplishments appear to be built up from activities (Verkuyl 1989, among many others), indeed it might be argued that this is counter-intuitive. However, let me examine this from the point of view of Salish. Davis (1997) and later Davis and Demirdache (2000) argue that all predicates in S'át'imcets are derived from unaccusatives: transitive predicates are derived by the suffixation of a transitivizer and intransitive predicates are derived by the suffixation of an overt intransitivizer or a zero-marked middle intransitivizer:

(110) *Unaccusatives (bare roots)*
a. qam't ti sqáycw-a
hit DET man-DET
'The man was hit (with something thrown).'

b. k'ac ti sqáycw-a
dry DET man-DET
'The man got dried.' or 'The man is dry.'
(Davis and Demirdache 2000: 100, ex. 3b,c)

(111) *Control Transitives*

a. √tup-**un'**
be-punched-**DIR**
'to punch someone/thing'

b. √mays-**en**
be fixed-**DIR**
'to fix something'

(Davis and Demirdache 2000: 102, ex. 6a,c)

(112) *Control roots: intransitives*

a. √ít'em-**ø**
sing-**øMID**[34]
'to sing, do some singing'

b. √paqw-**ø**
be observed-**øMID**
'to observe (things)'

(Davis and Demirdache 2000: 104-5, ex. 11b, 12b)

Originally proposed by Matthewson (2004), and later taken up in Bar-el, Davis and Matthewson (to appear) and extended to Sḵwx̱wú7mesh, the control transitivizer in both Sḵwx̱wú7mesh and S'át'imcets is responsible not only for introducing an agent who is in control over the event (missing from the bare unaccusative root), but is also responsible for removing the requirement of the bare root that the event culminates in the actual world. Drawing a comparison with my proposals of initial and final points, the transitivizer has a lot of work to do. Under the assumption that underived unaccusatives are here represented as achievements (BECOME events), the transitivizer for deriving accomplishments has to introduce a DO sub-event as well as removing the final BECOME event and add modality. If we follow Davis (1997) and Davis and Demirdache (2000) in assuming that activities are also derived from unaccusatives, and that these underived predicates also have culmination implications,[35] the intransitivizer also has a lot of work to do. The intransitivizer minimally has to introduce a DO sub-event and possibly also shift the BECOME event to an initial BECOME event. Thus, the bulk of the work falls on both the transitivizer and the

[34] I am unsure as to why the root is not glossed as 'get sung'.

[35] Davis and Demirdache (2000) argue that unaccusatives in St'át'imcets are semantically causative and appeal to a Pustejovsky (1991, 1995) representation, thus they might argue that the representations are more complex

intransitivizer, but as far as I understand, there is no requirement that the work load between the two be the same, or that one should do more work than the other. The remaining question is why the transitivizer removes the BECOME event while the intrasitivizer shifts it. At this point, I have no account for why this would be the case and will have to leave this issue for further research.

6. Summary and concluding remarks

In this chapter, I have motivated the absence/presence of intrinsic initial points in the representations of Sḵwx̱wú7mesh predicates on the basis of the results of two diagnostics: (i) the effect of punctual clauses and adverbials and (ii) the effect of the auxiliary *mi* 'come'. The results are given in the chart below:

(113) *Sḵwx̱wú7mesh predicates: Initial points*

	Punctual Clauses: readings	**Readings with *mi***	**Representation**	**Initial Point**
Activity	Inceptive	inceptive directional	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))**$(e_1) \wedge$ (DO(P))$(e_2)]$	✓
Accomplishment	inceptive, medial, final	* directional	$\lambda e.$[DO(P))$(e) \wedge$ [$\forall$w' [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists$e' [culminates (e') in w' $\wedge$ e causes e' in w']]]]	✗
Achievement	"entire event" (instantaneous)	entire event	**$\lambda e.$(BECOME(P))(e)**	✓
Inchoative State	inchoative	Inchoative	$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge$ **(BECOME(P))**$(e_1) \wedge$ P$(e_2)]$	✓

I argue that these tests show that activities, achievements and inchoative states have intrinsic initial points, while accomplishments do not. I also have argued that punctual clauses trigger a shift operation in predicates with complex structures that include an initial BECOME sub-event (activities and inchoative states). I discuss some possible alternate analyses and suggest that they are not the right avenue of analysis for Sḵwx̱wú7mesh as they alone do not account

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than BECOME events. As I have not yet worked out how this would parallel my proposed representations, I have to leave this for future research.

for the facts. Before I close this chapter, I would like to take a brief look at the relation between initial and final points in the representations of Sḵwx̱wú7mesh predicates.

Chapters Two and Three of this thesis provide evidence for the following claims:

(114) *Sḵwx̱wú7mesh predicates: Initial and Final points*

	Initial Point	**Final Point**
Activity	✓	×
Accomplishment	×	×
Achievement	✓	✓
Inchoative State	✓	×

The pattern that emerges with respect to the relationship between initial and final points can be generalized by the chart below (± features indicate the presence or absence of the initial or final point in the representation of the predicate):

(115) *Initial and Final points: dependencies?*

	+ Final	**- Final**
+ Initial	Achievements	Activities Inchoative states
- Initial	?	Accomplishments

The chart above suggests that there are no predicates that lack an initial point but have a final point; that is, there are no predicates of the type [-initial], [+final]. Moreover, I have not yet accounted for why there are events that have no initial points at all, namely, accomplishments in Sḵwx̱wú7mesh.

I can speculate on why this ontology emerges. One avenue of explanation may lie in the fact that accomplishments are not "basic"; this is to say that Sḵwx̱wú7mesh accomplishments are built up from achievement predicates (originally claimed by Davis 1997 and further discussion in Davis and Demirdache 2000 and Matthewson 2004). If this is the case, there are either one or two basic types of predicates, depending on whether the claim that all predicates (including those activities that are zero-marked with an intransitivizer) are derived from achievements extends to Sḵwx̱wú7mesh as well. One possibility is that there is one class of predicates that are +initial, +final (achievements) and

activities, accomplishments and inchoative states are derived from them. The second possibility is that there are two classes of predicates, the aforementioned and a class of type +initial, -final. If this is the case, then all underived predicates have initial points, but they are different depending on whether or not they have final points. As for accomplishments, if they are derived from achievements, the transitivizer removes BOTH the initial and final point of the event. The question is whether or not intransitivizers remove final points, but not initial points. It might be the case that the final point is removed in both the case of accomplishments and activities, and the fact that there is no initial point in the representation of accomplishments is a result of something other than the transitivizer. I am not concerned here with primitive classes per se, but with the meanings of those predicates that surface in the language. The question of the derivations of these classes is a larger issue that I leave for further research.

> *The basic aspectual contrast, which is to be found in all Salishan languages, is between perfective and imperfective...this opposition has been given a large number of labels, but these various labels can be viewed as being more or less equivalent to what is generally understood by 'perfective/imperfective'.*
>
> (Kinkade 1996: 185)

1. Introduction

Now that I have motivated the representations of Sḵwx̱wú7mesh predicates in Chapters Two and Three, the next two chapters I turn to "grammatical" or "outer" aspect in Sḵwx̱wú7mesh.[1] In this chapter, I examine perfectivity and in the following chapter, I examine imperfectivity. Smith (1997) calls these types of aspect "viewpoints"; this term intuitively captures the notion that predicates can be viewed in different ways once they are situated within a sentence. In these two chapters, I show that the proposed representations, along with an analysis of these two viewpoints, correctly predict the available readings of both perfective and imperfective Sḵwx̱wú7mesh predicates.

In this chapter, I first provide an overview of the behaviour of the perfective in Sḵwx̱wú7mesh (§2). Next, I examine the typology of the perfective, looking at four different types of perfectives cross-linguistically (standard perfective, completive perfective, semi-perfective, neutral perfective). I argue that although the Sḵwx̱wú7mesh perfective shares surface behaviours with other perfectives, a closer look reveals that the Sḵwx̱wú7mesh perfective is of a standard type (§3). Using the proposed predicate representations for Sḵwx̱wú7mesh established in Chapters Two and Three, I present an analysis of perfective predicates for each class, adopting Kratzer's (1998) analysis of the perfective (§4). I then examine two potential alternate explanations of the Sḵwx̱wú7mesh facts and suggest that neither accounts for the Sḵwx̱wú7mesh facts; in particular, I argue against the proposal that

[1] See Brinton (1988) for a discussion of some terminological confusion.

Sḵwx̱wú7mesh has a null imperfective or progressive marker, and that these sentences contain the neutral viewpoint (§5). I end the chapter with some concluding remarks (§6).

2. The perfective in Sḵwx̱wú7mesh: an overview

In the previous chapters I have shown that perfective Sḵwx̱wú7mesh predicates can have a variety of reading. The analysis that I propose for the perfective in Sḵwx̱wú7mesh, along with the predicate representations must account for all of these readings. In this section, I provide a brief overview of these readings.

Perfective activities in Sḵwx̱wú7mesh can have terminated readings (a), what seem to be on-going readings (b), and inceptive readings (c). A terminated reading is one where the event is understood to have stopped. This is different from a culminated reading where the event is understood to have reached a particular (culmination) point:

(1) a. chen-t x̱aa-m kwi chel'ak̲lh
1S.SG-PAST cry-INTR DET yesterday
'I cried yesterday.'

b. chen x̱ay-m
1S.SG laugh-INTR
'I am laughing.'

b. chen **itut** kwi s-es huy-nexw ta sx̱wex̱wiy'am'
1S.SG sleep DET NOM-3POSS finish-TR(LC) DET story
'I went to sleep when he finished the story.'

Perfective accomplishments in Sḵwx̱wú7mesh have culminated readings (a), that are implicatures only (b), and can also be used to refer to inceptive, medial and final events (c):

(2) a. na x̱el'-t-as ta sx̱wex̱wiy'am' lha Mary
RL write-TR-3ERG DET story DET Mary
'Mary wrote a story.'
Speaker's comments: "She wrote it...she finished"

b. kwa John na k̲w'el-nt-as ta sk̲awts
DET John RL cook-TR-3ERG DET potato

welh haw k̲-as i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR(LC)-3

'John boiled a potato but never finished.'

c. na **x̲el'-t**-as ta sx̲wex̲wiy'am' kwa John
RL **write-TR**-3ERG DET story DET John

na7 t-kwi an'us-k̲
LOC OBL-DET two-o'clock

'John wrote the story at two o'clock.'
✓Context: inceptive
✓Context: medial
✓Context: culminating

Perfective achievements in Sk̲wx̲wú7mesh have culminating readings (a), which are entailments (b):

(3) a. tl'ik̲ ta John
arrive DET John
'John got here'/'John arrived.'
Speaker's comments: "Can't mean he hasn't arrived yet"

b. *na x̲elk̲'-em ta sk̲ak̲l tiná7 ta yay'wes
RL fall-INTR DET baby from DET bed

i na7-xw wa x̲elk̲'-em
and RL-still IMPERF fall-INTR

(attempted gloss: 'The baby fell from the bed and he's still falling.')
Speaker's comments: "Do you mean 'still falling'? No...not proper."

Finally, perfective inchoative states in Sk̲wx̲wú7mesh have both inchoative and stative readings:

(4) chen t'ayak̲'
1S.SG angry
(i) 'I got angry/upset.'
(ii) 'I am angry.'

These data are summarized in the table below:

(5) *Summary: Sḵwx̱wú7mesh perfective predicates*

	PERFECTIVE READINGS		
	Inceptive/ Inchoative[2]	**Medial ("in-progress"/stative)**	**Final (termination/culmination)**
Activities	Inceptive	"in-progress"	Terminated
Accomplishments	Inceptive	"in-progress"	Culminated
Achievements	×	×	Culminated
Inchoative States	Inchoative	Stative	×

In the following section, I examine perfectivity from a typological perspective and a theoretical perspective and show that Sḵwx̱wú7mesh has perfective of the "standard" type.

3. Sḵwx̱wú7mesh and the typology of perfectivity

Comrie (1976) describes imperfectivity as "explicit reference to the internal structure of a situation; viewing a situation from within" while perfectivity is the lack of this explicit reference. Smith (1997) suggests that "sentences with a perfective viewpoint present a situation as a whole" and that includes both the initial and final endpoints of a situation (p. 66). In Chapter Five, I will provide evidence that Sḵwx̱wú7mesh has morphemes that correspond to imperfectivity. In this chapter, I show that there is no overt morpheme that corresponds to "perfective" in Sḵwx̱wú7mesh; however, I argue that sentences without overt imperfective marking are perfective.

The behaviour of the perfective has been examined in many different languages. In the four languages examined in this section, it has been argued that the perfective differs in whether it induces culmination entailments and termination entailments. *Culmination* is relevant for predicates that have final points, while *termination* is relevant for both predicates with final point and without. When a predicate reaches its final point it is said to have culminated while a predicate that has stopped (but not necessarily culminated) is said to have terminated. Activities have no final points, thus culmination is not relevant, but termination is. Accomplishments have final points, thus both culmination and termination are relevant. Given the claim that the standard perfective presents the eventuality as a whole, perfective predicates with final points are expected to have reached their final point; thus they are

expected to have both a termination entailment and a culmination entailment. On the other hand, perfective predicates without final points are not expected to have a termination entailment.

I focus this discussion on the effect of the perfective with accomplishments and activities as representations of typical (but not universal) telic and atelic predicates, respectively. Some of the studies discussed here have concluded that the perfective can behave differently in different languages; for example, in one language all perfective predicates (both activities and accomplishments) have termination entailments (e.g., Dëne Sųłiné). In another, accomplishments have termination entailments but not culmination entailments (e.g., Thai). A summary of the different types of perfectives is given in the chart below:

(6) *The "Perfective" cross-linguistically*

Type of Perfective	**Activities**	**Accomplishments**	
	Termination entailment	**Culmination entailment**	**Termination entailment**
Standard Perfective *(e.g., English)*	×	✓	✓
Completive Perfective *(e.g., Dëne Sųłiné)*	✓ (completion)	✓	✓
Semi-perfective *(e.g., Thai)*	-	×	✓
Neutral Perfective *(e.g., Hindi)*	-	× (with some exceptions)	-

(- = data is not available from source)

In Chapter Two I argued that neither activities nor accomplishments in Sḵwx̱wú7mesh have final points. I showed that activities do not have termination entailments in the perfective and accomplishments have neither termination entailments nor culmination entailments in the perfective. The question is then what type of perfective does Sḵwx̱wú7mesh have. I argue that the Sḵwx̱wú7mesh perfective is of the standard type. We begin by looking at the standard perfective in English.

[2] I use inchoative to refer to the beginning of a state and inceptive to refer to the beginning of an event. Both, I argue are marked by an initial BECOME event.

3.1. Standard perfective: English

In English, perfectivity does not necessarily entail event completion; the completion entailment is dependent on the aspectual class of the predicate. Smith (1997, 1999) suggests that perfective telic events present *completed* events:[3]

(7) a. Mrs. Ramsey wrote a letter. (accomplishment; telic)
b. Mr. Ramsey reached the lighthouse. (achievement; telic)
(Smith 1997: 67, ex. (10b,d))

Smith argues that the culmination induced by an accomplishment in the perfective is an entailment, not an implicature, since a contradiction results when the event denoted by the predicate is continued (a-b) or when the culmination is cancelled (c-d):[4]

(8) a. #Mrs. Ramsey wrote a letter and she may still be writing it.
(Smith 1997: 67, ex. (11))
b. #Donald fixed the clock and he is still fixing it.
(Smith 1999: 487, ex. (3a))
c. #Mary walked to school and she's still walking.
(Smith 1997: 64, ex. 4b)
d. #Mrs. Ramsey wrote a letter, but she didn't finish writing it.
e. #James fixed the clock, but he didn't finish fixing it.
(Smith 1997: 68, ex. (12a-b))
f. #Mary walked to school but she didn't actually get there.
(Smith 1997: 64, ex. 4a)

Activity predicates, on the other hand, do not entail culmination in the perfective. As Smith suggests, perfective activities are interpreted as *terminated* events when expressed in isolation (Smith distinguishes between terminated and completed events in order to capture the difference between accomplishments which have a natural endpoint and activities, which do not):

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[3] I am following Smith (1997) who claims that the English perfective is phonologically zero and Brinton (1988) who claims that the simple past in English is used to indicate a past perfective situation.
[4] In my own study of these facts in English (see Chapter Six), speakers have these same judgments. However, it has been claimed by anonymous reviewers of my work that these sentences are grammatical for some speakers. H. Davis (p.c.) states that (a-c) are infelicitous while (d-f) are felicitous.

(9) a. Lily swam in the pond.

b. Lily worked.

c. The dancers rehearsed.

Smith suggests that activity sentences are not compatible with assertions of simple continuation (a-c); however, if a new unit of activity is asserted, the conjunctions are acceptable (d-e):

(10) a. #Lily swam in the pond and she may still be swimming.
(Smith 1997: 67, ex. 11a)

b. #Lily worked and she may still be working.
c. #The dancers rehearsed and they may still be rehearsing.
(Smith 1999: 488, ex. 6a-b)

d. Lily worked and continued working after that without a break.
e. The dancers rehearsed and kept on rehearsing.
(Smith 1999: 488 ex. 7a-b)

The reason that sentences like those in (d-e) are fine while those in (a-c) are not, Smith attributes to the fact that the perfective presents an activity as a temporal unit with an implicit temporal bound, but not necessarily terminated. In the grammatical sentences above each introduce another temporal unit. As Smith argues, these "implicit bounds need not coincide with the endpoints of the activity" and cites the following examples from narrative passages:

(11) a. She turned on the light and looked at Ernest lying beside her. He was sound asleep. **He snored**.

b. John entered the president's office. **The clock ticked loudly**.
(Smith 1999: 497, ex 22, 24)

She claims that the bolded activities have gone on for some time and will continue and that the terminative interpretation of the activity is implausible.[5] However, what Smith fails to

[5] My judgement, along with other native English speakers (though not formally tested), is that these sentences are quite bad on the "already on-going" reading.

mention here is the fact that the relevant predicates in the above sentences are typical semelfactives which can have other readings that may not be available for activities.

Smith provides the following analysis for perfective activity sentences; she argues that in discourse dynamic terms, these sentences "introduce a Reference Time interval and the temporal unit of the Activity falls within the interval":

(12) *Relation between a perfectively presented Activity and RT*

For a given Activity E, RT interval I, and times t and t' which fall within I: t and t' coincide with the IBI and IBF.

IBI (initial bound) and IBF (final bound) represent the initial and final temporal bounds that are implicit; these bounds are determined by context and real-world knowledge. As Smith notes, "whether or not IBI and IBF coincide with the beginning and ending of the Activity is indeterminate".

3.2. Completive perfective: Dëne Sųłiné

Wilhelm (2003) shows that the Dëne Sųłiné perfective necessarily denotes a completive meaning. Her evidence comes from spontaneous translations of perfective sentences in which case speakers tend to offer "an extra English expression like *finished* indicating event completion" (p. 57). This is shown in the data below. According to Wilhelm, following Cook (in prep), the perfective and imperfective viewpoints are indicated by "conjugation markers" (CM) which differ depending on the class of the verb to which they attach; the data below illustrate that there is more than one conjugation marker that denote perfective (see Wilhelm 2003, Chapter One for further discussion). The perfective markers *the-* (a) and *ghe-* (b) are bolded below:

(13) a. bekúthiłt'e kú...
be-ká#**the**-i-ł-t'e kú
3O-P#**CM**-1s-cl-cook.O.perf and/now
'I'm ready, I finished cooking...'

b. ʔuneghiyą
ʔu-ne-**ghe**-i-Ø-yą
th-gd/th-**CM**-1s-cl-pick(berries).perf
'I'm finished picking berries.'

(Wilhem 2003: 57, ex. 35a-b)

Further evidence, according to Wilhelm, that the Dëne Sųłiné perfective necessarily denotes a completive meaning is in the contrast between perfective and imperfective sentences where the perfective implies[6] event completion and the imperfective does not. This is shown in the pair of sentences below where the implied meaning of the imperfective sentence in (a) is that of non-completion, whereas the implied meaning of the perfective sentence in (b) is that of completion. The imperfective and perfective CMs are bolded in the examples below (the imperfective CM is a zero morpheme):

(14) a. ʔiłá nĕné k'étłá yoh hołtsį ni
ʔiłá nĕné k'étłá yoh ho-**Ø**-ł-tsį ni
one year duration.of house gd-**CM**-cl-make.O past
'She was making a/the house for a year.' IMPF
implied: the house is not finished[7]

b. ʔiłá nĕné k'étłá yoh hółtsį ni
ʔiłá nĕné k'étłá yoh ho-**th**-ł-tsį ni
one year duration.of house gd-**CM**-cl-make.O past
'She built a/the house for a year/over a year.' PERF
implied: the house is finished

(Wilhem 2003: 57, ex. 34a-b)

Wilhelm also shows that perfective clauses combined with a 'completion verb theme' *ʔanast'e* which she labels as 'stop/finish', induce a tautology and are thus always judged ungrammatical; this is reinforced by the speaker's comments that the second clause is unnecessary for perfectives (a) but is completely grammatical with imperfectives (b). Although the glosses look identical, the CM (conjugation marker) in (b) is Ø, which marks an imperfective clause, while the CM in (a) is *the*, which marks a perfective clause. The

[6] Wilhelm uses the term "implies", though her data suggest that she means "entails"
[7] I am assuming that Wilhelm does not use the term *implies* here formally; since, as she notes in a footnote, she does not edit any of the translations, I assume she uses "implied" here to mean that this was what the speaker

imperfective clause can easily co-occur with the completive verb theme (I presume that the sentence in (a) would mean something like 'I finished completely patching it'):

(15) a. #/*nánathiłdą́ ʔanast'e
ná-na**#the**-i-ɬ-dą́ ʔa-na#s-Ø-t'e
th-th#**CM**-1s-cl-mend.O th-th#1s-cl-stem
[intended: 'I finished patching it.'] PERF
(Wilhelm 2003: 58, ex. 38a)

b. nánasdą́ ʔanast'e
ná-na#**Ø**-s-ɬ-dą́ ʔa-na#s-Ø-t'e
th-th#**CM**-1s-cl-mend.O th-th#1s-cl-stem
'I'm finished patching it.' IMPERF
(Wilhelm 2003: 58, ex. 37)

She further argues that the completive meaning of the Dëne Sųłiné perfective is an entailment, not an implicature. Evidence for this stems from cancellation clause data and is illustrated below for accomplishments and activities. The final points of activities or accomplishments in the perfective cannot be cancelled without inducing a contradiction:

ACCOMPLISHMENT

(16) a. tthidziné k'e bĕr thiłbes #kúlú ʔanasdhën-íle
tthidziné k'e bĕr **the**-ɪ-ɬ-bes kúlú ʔa-na#(the-)s-l-dhën ʔile
yesterday meat **CM**-1s-cl-boil.O but th-th#CM-1s-cl-stem not
#('Yesterday I boiled some meat [but I'm not finished it].')
(Wilhem 2003: 60, ex. 42a)

ACTIVITY

b. yaghiłti #kúlú ʔanast'e-íle
ya#**ghe**-i-ɬ-ti kúlú ʔa-na#s-Ø-t'e ʔile
th#-**CM**-1s-cl-stem but th-th# 1s-cl-stem not
#('I talked/prayed [but I didn't finish].')
(Wilhem 2003: 60, ex. 42c)

This test crucially relies on the claim that the completive verb theme can mean 'stop' or 'finish'. Dowty (1979) claims that in English, "only accomplishment verbs can normally occur as the complement of finish":

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intended. She argues that "the Perfective forms the counterpart to the Imperfective in that it implies event completion, i.e., the reaching of an inherent endpoint" (p. 57).

(17) a. John finished painting a picture.
b. *John finished walking.[8]

(Dowty 1979: 57; ex. (34))

Wilhelm argues that the Dëne Sųłiné completive verbs theme used in the above examples is compatible with both activities and accomplishments, and can mean 'stop' or 'finish' for either predicate.[9] The crucial example here, is one where the completive verb theme is compatible with activities, such as the following:

(18) yasti ʔanast'e
1s-speak/talk/pray CVT
'I finished praying/speaking, I stopped praying/quit talking.'

(Wilhelm 2003: 77, ex. 65b)

Further evidence for the completive meaning of the Dëne Sųłiné perfective comes from data with continuation clauses and is illustrated below by what Wilhelm classifies as "activities" (although she does argue for a class of semelfactive predicates, she does not classify the predicates below as such). These sentences are judged as unusual by speakers which Wilhelm attributes to the fact that the perfective forces the event to be completed, not simply terminated:

(19) a. #yághelgus-ú ʔą́ų́ yálgus
yá#**ghe**-l-gus ʔú ʔą́ų́ yá#l-gus
th#**CM**-cl-stem:jump and still th#cl-jump
('He finished jumping and he's still jumping.')

b. #hughikĕr-ú ʔą́ų́ heskĕr
hu-**ghe**-i-Ø-kĕr ʔú ʔą́ų́ he-s-Ø-kĕr
ser-**CM**-1s-cl-stem:pat and still ep-1s-cl-stem:pat
('I patted it and I'm still patting it.')

(Wilhem 2003: 60, ex. 47-8)

[8] H. Davis (p.c.) notes that *finish* is compatible with a number of activities: *I finished working, I finished eating*... Davis's examples have cognate or understood objects, which I suspect impacts the results.
[9] Wilhelm argues that there is a preference for a 'finish' interpretation with accomplishments.

The reading is available for interpretations where a second event happens; as Wilhelm notes "I V-ed for a while, then I stopped, and now I'm V-ing again".

To account for the fact that the Dëne Sųłiné perfective entails event completion for all aspectual classes, Wilhelm proposes that the Dëne Sųłiné perfective "focuses not only the entire situation time but a posttime of the situation". This is to say that the event time in addition to a posttime is contained within the reference time (Wilhelm uses Klein's (1994) terminology of Topic Time, Situation Time (Tsit) and Utterance Time (UT); in order to draw the parallel with the Sḵwx̱wú7mesh data and the terminology that I have adopted, I use RT and ET below). An adapted illustration of her proposal in comparison with the unmarked perfective is given below:

(20) a. *Unmarked perfective*

------[$_{RT}$—{$_{ET}$----------}--]---------->

b. *Dëne Sųłiné completive perfective*[10]

------[$_{RT}$—{$_{ET}$---------}++++++++]---------->

posttime

Recall that in English, the perfective imposes an implicit bound on predicates and whether the event terminates or culminates is dependent on the class of predicate; accomplishments culminate, while activities terminate in the perfective. This analysis, Wilhelm argues, cannot account for why activities in Dëne Sųłiné also entail event completion, not just termination; as such, she states that the completion entailment is a result of the meaning of the perfective, not the telicity of the predicate. Let us now turn to a very different type of perfective, where, unlike both English and Dëne Sųłiné, there is no culmination entailment for accomplishments.

Clearly, the Sḵwx̱wú7mesh perfective cannot be a completive perfective since neither activities nor accomplishments are required to have terminated or culminated readings in the perfective:

Activities: no termination entailment

(21) na k̲w'eyilsh lha Mary i na7-xw wa k̲w'eyilsh
RL dance DET Mary CONJ RL-still IMPERF dance
'Mary danced and she's still dancing.'

Accomplishments: no culmination entailment

(22) na p'aya**k̲**-ant-as ta John ta snexwilh-s
RL heal-TR-3ERG DET John DET canoe-3POSS

welh haw k̲-as i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR(LC)-3ERG

'He fixed his canoe but he didn't finish (fixing) it.'

Accomplishments: no termination entailment

(23) na x̲el'-t-as ta sx̲wex̲wiy'am' lha Mary
RL write-TR-3ERG DET story DET Mary

iw'ayti na7-xw wa x̲el'-t-as
maybe RL-still IMPERF write-TR-3ERG

'Mary wrote a story. Maybe she's still writing it.'

In the following section, I examine Thai, where perfective accomplishments have been claimed to have termination entailments, but not culmination entailments.

3.3. Semi-perfective: Thai

Koenig and Muansuwan (2001) argue that Thai exhibits what they call a *semi-perfective* marker. They show that the semi-perfective differs from the standard perfective in that an accomplishment predicate marked by the perfective *kʰɯ̌n* denotes an event that does not have to be completed:

(24) Surii tèɛŋ klɔɔn **kʰɯ̂n** tèɛ jaŋ mâj sèd
Surii compose poem **ascend** but still not finish
'Surii composed a/the poem, but has not finished it yet.'
(Koenig and Muansuwan 2001: 157, ex. 14)

[10] Wilhelm does not specify what the notation "+" represents; I assume this is simply meant to draw attention to the posttime.

They further specify that these facts are not due to a property of the direct object as the same facts hold for NPs that denote a specified quantity, an NP modified by a deictic determiner and sentences with pronouns.

However, the event denoted by a perfectively marked predicate must have ended, even though it is not completed. The sentence in (a) is not marked with the perfective marker, and while it is pragmatically odd, Koenig and Muansuwan argue that it is grammatical. In sentence (b), which is overtly marked by what they claim is the perfective marker 'ascend', however, the continuation of the event yields an ungrammatical sentence (notations are those used by Koenig and Muansuwan):

(25) a. ?Surii tèɛŋ klɔɔn sǎam bòt lɛ? kamlaŋ tèɛŋ jùu
Surii compose poem three CLASS and PROG compose CONT
'Surii is composing/composed three poems and is still composing them.'
(Koenig and Muansuwan 2000: 158, ex. 18a)

b. #Surii tèɛŋ klɔɔn sǎam bòt **kʰûn** lɛ? kamlaŋ tèɛŋ jùu
Surii write poem three CLASS **ascend** and PROG compose CONT
'Surii composed three poems and is still composing them.'
(Koenig and Muansuwan 2000: 158, ex. 18b)[11]

Koenig and Muansuwan state that while others have noted similar facts in other languages, their analyses do not actually account for the facts (namely, Smith 1997 and Binnick 1991). Koenig and Muansuwan instead propose a new analysis that can derive the Thai facts. Crucial for their analysis is the claim that "Thai accomplishment stems are fundamentally imperfective in that they do not refer to complete eventualities, but to subparts of inherently bounded eventualities". Thus all accomplishments verbal stems carry an imperfective operator, and to account for the semi-perfectivity, Koenig and Muansuwan introduce a Max operator and the condition Max (e, ϕ) encodes the fact that the semi-perfective marker indicates that e is bounded with respect to the eventuality description encoded by the VP over which it has scope. It is here that crucially the stem must be

[11] It is not clear why they use the notation "#" rather than "*" to indicate ungrammaticality. Furthermore, it is not clear whether the present tense reading that is available for (18a) is also available here. If not, this might be significant.

imperfective to ensure that completion is not entailed. A formal account of the Max operator is shown below:

(26) The referent of a discourse marker e satisfies the predicative condition Max (e, ϕ) if and only if e is the largest eventuality which satisfies ϕ, that is if there is no eventuality e'' such that e ⊂ e'' which satisfies the eventuality description ϕ.
(p. 19, ex 34)

As shown in Chapter Two, Sḵwx̱wú7mesh accomplishments, like Thai accomplishments, do not entail culmination. However, unlike Thai, perfective accomplishments in Sḵwx̱wú7mesh do not necessarily end – they can be continued without inducing infelicity (27) and their ending can be questioned without inducing infelicity (28). This is illustrated below:

(27) a. chen yetl'ḵ'-an ta lam'
1S.SG paint-TR DET house
i na7-xw chen wa yetl'ḵ'-an
CONJ RL-still 1S.SG IMPERF paint-TR
'I painted the house and I'm still painting it.'

b. chen p'ats'-an ta hem'ten
1S.SG sew-TR DET blanket
i na7-xw chen wa p'ats'-an
and RL-still 1S.SG IMPERF sew-TR
'I sewed the blanket and I'm still sewing it.'

c. na x̱el'-t-as ta sx̱wex̱wiy'am' lha Mary
RL write-TR-3ERG DET story DET Mary
iw'ayti na7-xw wa x̱el'-t-as
maybe RL-still IMPERF write-TR-3ERG
'Mary wrote a story. Maybe she's still writing.'

(28) a. na k̲w'el-t-as kwi smeyts kwa John
RL cook-TR-3ERG DET meat DET John
'John cooked meat.'

b. na u men wa we7u wa k̲w'el-t-as
RL Q just IMPERF continue IMPERF cook-TR-3erg
'Is he still cooking it?'

I argue here that even given the differences between the readings in the two languages, this analysis of Thai cannot be adapted to account for the Sk̲wx̲wú7mesh facts. Out of the blue judgments of Sk̲wx̲wú7mesh perfective accomplishments are not imperfective, nor are they ambiguous with imperfective and perfective interpretations, as shown by the data below:

(29) a. na x̲el'-t-as ta sx̲wex̲wiy'am' lha Mary
RL write-TR-3ERG DET story DET Mary
'Mary wrote a story.'
Speaker's comments: "She wrote it...she finished"

b. chen p'aya k̲-an ta tetxwem
1S.SG fix-TR DET car
'I fixed the car.'
Speaker's comments: "You already fixed it"

Thus, while Sk̲wx̲wú7mesh and Thai seem to share similar behaviours with respect to perfective sentences, the data from the two languages are not exactly parallel; as a result, pursuing an analysis of these Sk̲wx̲wú7mesh sentences as containing a semi-perfective will not account for the Sk̲wx̲wú7mesh facts.

In the following section I examine perfective accomplishments data from Hindi, which, like Thai, have also been claimed to have no culmination entailment; however, Hindi differs from Thai in that this is dependent on a number of factors, including the type of accomplishment predicate used.

3.4. Neutral perfective: Hindi

Singh (1999) discusses what she calls the "perfective paradox" in Hindi, where a perfective sentence is typically taken to indicate that an event has reached its end, though it is

compatible with clauses that negates the completion of the event. This is illustrated by the data below:

(30) mãẽ ne aaj apnaa kek **khaayaa** aur baakii kal khaaũũgaa
I ERG today mine cake **eat-PERF** and remaining tomorrow eat-FUT
'I ate my cake today and I will eat the remaining part tomorrow.'
(Singh 1998: 172, ex. (3))

She suggests that the viewpoint of this sentence is not the standard perfective, but the "neutral perfective"; it presents an event as a whole, as does the standard perfective, but unlike the standard perfective, the neutral perfective does not require that the event be completed, only that it has reached an endpoint (which is not necessarily the natural one that results when an accomplishment is complete).[12]

However, as Singh notes, certain predicates in the simple form must be completed in the perfective, namely, what she calls gradual event predicates with the feature of *total affectedness*. She states that this refers to "the change a patient undergoes as a result of an action". The example she cites is that of *eating an apple* versus *reading a letter*. The former event affects the apple in its physical structure where the latter event does not change its patient in any way. In sentences that consist of a perfective simple verb and whose predicates do not have the feature total affectedness, a partitive reading is possible (a), while in a sentences that consists of a perfective simple verb whose predicate does have the feature total affectedness, the partitive reading is not possible, as in (b):

(31) a. us ne ciTThii **paRhii** par puurii nahĩĩ kii
he ERG letter **read-PERF** but complete NEG do-PERF
'He read a letter but did not complete it.'

[12] On the surface, this seems to parallel the claims in the previous section for Thai; however, the authors use different diagnostics to arrive at their conclusions and it would be of interest to verify whether the results are the same across the two languages. Although Singh does not discuss Hindi predicate classes in her paper, all sentences seem to consist of predicates which translate into English as accomplishments.

b. *miiraa ne bahut acchii caay **banaaii**
Mira ERG very good tea **make-PERF**
par puurii nahĩĩ banaaii
but completely NEG make-PERF

'Mira made very good tea but did not make it completely.'
(Singh 1998: 184, ex. (28-29))

Singh also proposes that the neutral perfective readings interact with the nature of the object. When a simple verb is used, and the NP object of the sentence behaves as a quantized mass noun (head noun is count, but is combined with a 'non-discrete' determiner, which Singh argues is to be treated as 'one gallon of wine'), the perfective denotes a completive reading only, as illustrated by the data below where the addition of a clause that suggests a partial reading is not possible:

(32) us ne deRh seb khaaye
he ERG one-and-a-half apples eat-PERF
(*par puurii nahaĩĩ khaaye)
(but entire NEG eat-PERF)

'He ate one-and-a-half apples (*but did not eat all of them).'
(Singh 1999:186-7, ex 35)

Let us consider whether the data from Sḵwx̱wú7mesh illustrates that is an instance of a neutral perfective rather than a standard perfective according to Singh's facts for Hindi.

The first issue is that unlike in Hindi where compound verbs behave differently from simple verbs, in Sḵwx̱wú7mesh all the accomplishment predicates marked with the *control* transitivizer that I have tested behave in the same way, that is, they do not entail completion.[13] Transitivizers in Salish encode control, which, according to Thompson (1979) denotes the degree of (potential or actual) control the agent has over the event (see Appendix A for further detail). Transitivizers that denote different degrees of control yield different meanings; the sentence in (a) shows a predicate marked with a control transitivizer (*-an*) and the sentence in (b) shows a predicate marked with a limited control transitivizer (*-nexw*)

[13] Although I have not checked every accomplishment in the Sḵwx̱wú7mesh lexicon, I have tested 15 predicates marked with a control-transitivizer.

which indicates that the agent had a limited degree of control over the event, and thus gets translated as 'managed to':

(33) a. chen xewtl'-an ta stsek
1S.SG break-**TR** DET tree
'I broke the stick.'

b. chen xewtl'-**nexw** ta stsek
1S.SG break-**TR(LC)** DET tree
'I managed to break the stick.'

Control-marked predicates do not entail completion in Skwxwú7mesh, and as such a perfective event can be continued without inducing a contradiction; non-control marked predicates do entail completion, which is why they are judged infelicitous when a perfective event is continued. This is illustrated by the data below:[14]

(34) chen **xewtl'-an** ta lhach'ten
1S.SG break-TR DET knife
i na7-xw chen wa xewtl'-an
CONJ RL-still 1S.SG IMPERF break-TR
'I broke a knife and I'm still breaking it.'

(35) #chen **xewtl'-nexw** i na7-xw chen wa xewtl'-an
1S.SG break-TR(LC) and RL-still 1S.SG IMPERF break-TR
Speaker's comments: "You already broke it...can't still be breaking it...it's already broken"

An auxiliary in Skwxwú7mesh that might be considered to create a compound verb with the predicate is *mi* 'come'; the data below illustrate that the perfective sentences in Skwxwú7mesh that consist of complex accomplishment predicates, as with simple predicates, do not entail completion. The addition of a cancellation clause does not induce an ungrammaticality:

[14] While the judgements are robust with the non-control sentences, the data is still limited at this point.

(36) a. chen **mi** p'aya<u>k</u>-an ta <u>k</u>'iyá<u>x</u>an
1S.SG **come** fix-TR DET fence

welh haw <u>k</u>-an i huy-nexw
but NEG IRR-1CNJ PART finish-TR(LC)

'I came to fix the fence but didn't finish.'

b. na **mi** pen-t-as ta shaw' ta s<u>k</u>wemay'
RL **come** bury-TR-3ERG DET bone DET dog

welh haw <u>k</u>-as huy-nexw-as
CONJ NEG IRR-3CNJ finish-TR(LC)-3ERG

'The dog came to plant the bones but he didn't finish.'

Second, Singh shows that in Hindi, sentences that consist of a perfective simple verb and whose predicates do not have the feature *total affectedness*, have a partitive reading (a), while in sentences that consists of a perfective simple verb whose predicate does have the feature total affectedness, the partitive reading is not possible, as in (b), repeated from (31) above:

(37) a. us ne ciTThii paRhii par puurii nahĩĩ kii
he ERG letter read-PERF but complete NEG do-PERF
'He read a letter but did not complete it.'

b. *miiraa ne bahut acchii caay **banaaii**
Mira ERG very good tea **make-PERF**

par puurii nahĩĩ banaaii
but completely NEG make-PERF

'Mira made very good tea but did not make it completely.'
(Singh 1998: 184, ex. (28-29))

In S<u>k</u>w<u>x</u>wú7mesh, there are no such restrictions; this is to say that control marked predicates have no entailment of completion, regardless of the "features" associated with the predicate. Thus, for example, the sentences below, which contain a predicate that according to Singh would be classified with the feature total affectedness, have no entailment of completion (unlike in Hindi), as in the examples in (a), and do not have an ending entailment either, as in the examples in (b):

(38) a. kwa John na kw'el-nt-as ta skawts
DET John RL cook-TR-3ERG DET potato

welh haw k-as i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR(LC)-3ERG

'John cooked a potato but never finished.'

b. chen kw'el-t ta smeyts ti natlh
1S.SG cook-TR DET meat DET morning

iw'ayti wa7-xw wa kw'el ta smeyts
maybe IMPERF-still IMPERF cook DET meat

'I cooked the meat this morning and it's still cooking.'

(39) a. chen p'ats'-an ta hem'ten kwi chel'aklh
1S.SG sew-TR DET blanket DET yesterday

welh haw k-an i huy-nexw
CONJ NEG IRR-1CNJ PART finish-LC

'I sewed a/the blanket yesterday but did not finish.'

b. chen p'ats'-an ta hem'ten
1S.SG sew-TR DET blanket

i na7-xw chen wa p'ats'-an
and RL-still 1S.SG IMPERF sew-TR

'I sewed the blanket and I'm still sewing it.'

One might even argue that it is not necessarily total affectedness that is relevant here, but some degree of affectedness such as *partial* affectedness. Examples that Singh might consider to involve partial affectedness, such as *peel*, also lack a culmination entailment and an ending entailment in Skwxwú7mesh, as shown by the data below:

(40) a. chen ts'uy-un ta shawik welh haw
1S.SG peel-TR DET carrot CONJ NEG

k-an i huy-nexw s-en wa ts'uy-un
IRR-1CNJ PART finish-TR(LC) NOM-1CNJ IMPERF peel-TR

'I peeled the carrots, but I didn't finish peeling them.'

b. chen ts'uy-un ta shawik̲
1S.SG peel-TR DET carrot

i na7-xw chen wa ts'uy-un
and RL-still 1S.SG IMPERF peel-TR

'I peeled the carrots, and I'm still peeling them.'

Singh attempts to derive neutral perfective aspect in Hindi from the features she attributes to different predicates and the types of objects that they take; these features are built into her definition of the neutral perfective as she introduces an operator on thematic relations into the meaning. I argue that the analysis of the neutral perfective cannot be extended to Sk̲wx̲wú7mesh as the interpretations of perfective sentences in Sk̲wx̲wú7mesh do not depend on the type of accomplishment predicate selected[15] or the objects they take.

This discussion of the Hindi data shows that while the perfective in Hindi does exhibit characteristics that make it quite distinct from the standard perfective in English, it also shows similarities to the Thai semi-perfective. However, the fact that there are exceptions to the "neutrality" of the Hindi perfective suggests that this type of perfective is a distinct one. The four types of perfective discussed in this section are summarized in the following section.

3.5. Summary

A summary of the different types of perfectives observed cross-linguistically is given in the chart below, with the example language associated with each. I distinguish between culmination entailment and termination entailment since at least Thai shows a contrast between these two diagnostics. However, the data from Hindi does not use the diagnostic that picks out the ending entailment, thus I cannot conclude whether or not there is a contrast between these two in that language.

Furthermore, in the chart below, I distinguish between two predicate classes: activities and accomplishments. While it is the case that the Sk̲wx̲wú7mesh perfective has

[15] I assume that the class of accomplishments here are all control-marked. As for the limited-control marked predicates, although I do not explain here why they entail culmination, I argue that it is not likely that control marking would induce a different viewpoint/grammatical aspect; this is what I would be forced to stipulate if I wanted to maintain that Sk̲wx̲wú7mesh control-marked accomplishments have the neutral perfective.

similar characteristics to other "non-standard" perfectives, I argue that the differences between activities and accomplishments are not a result of the nature of the perfective in Sḵwx̱wú7mesh, but a result of the meaning of predicates. For those languages where Sḵwx̱wú7mesh data seems, on the surface, to parallel in behaviour (i.e., Thai and Hindi), activities might be expected to behave the same as in English or Sḵwx̱wú7mesh. However, since these researchers are not exploring the alternative that this is a contrast in predicate class meaning, not perfective meaning, this information has not been included. So while the data may not be very surprising, for a complete picture, it is necessary to include them.

Finally, with respect to the English facts discussed above, while Smith's (1997) account suggests that there are additional factors that may affect the judgement of termination entailments of activity predicates, I argue based on the English data that I have collected, that activities lack this entailment (see Chapter Six for further discussion; the "?" indicates that the data is not provided in the sources consulted).

(41) *The "Perfective" cross-linguistically*

Type of Perfective	**Activities**	**Accomplishments**	
	Termination entailment	**Culmination entailment**	**Termination entailment**
Standard Perfective *(e.g., English)*	×	✓	✓
Completive Perfective *(e.g., Dëne Sųłiné)*	✓ (completion[16])	✓	✓
Semi-perfective *(e.g., Thai)*	-	×	✓
Neutral Perfective *(e.g., Hindi)*	-	× (with some exceptions)	-
Standard Perfective *(e.g., Sḵwx̱wú7mesh)*	×	×	×

4. The Sḵwx̱wú7mesh perfective is of the "standard" type

At this point it should be clear that none of the descriptions of the perfective in any of the languages discussed above are exactly parallel to Sḵwx̱wú7mesh. The analyses proposed all seem to follow an intuition that the perfective can vary cross-linguistically (Comrie 1976, for

example); none of the analyses discussed in this section have explored the idea that rather than looking at the meaning of the perfective to derive these differences we can look at the meaning of the predicates themselves to explain these differences. Thus, while it has been claimed that the meaning of the perfective can vary cross-linguistically, it is also relevant to look elsewhere in the grammar of a language to see whether these differences can be derived by other means. I do not here intend to say that any of these analyses are wrong for the languages with which they are discussed, but that the criteria used to establish these differences in perfectivity can also be used as diagnostics for other behaviours in the grammar. Thus, I take into consideration not only the behaviour of the perfective, but the behaviours of the predicate classes in order to be able to argue whether these differences lie in the meaning of "grammatical aspect" or in the meaning of "lexical aspect". I am considering both the results from applying the tests used to argue for the meaning of the perfective along with other diagnostics for predicate classes. Given the Sḵwx̱wú7mesh aspectual classification I have argued for in Chapters Two and Three, and examining the perfective data in more detail (in parallel with other languages here), it should be clear that arguing that the lack of culmination or ending entailments in Sḵwx̱wú7mesh is a result of the meaning of the perfective obscures the other facts about predicate classes (initial and final points) that are observed in the language.

Thus, I argue that Sḵwx̱wú7mesh has a standard perfective that has different readings with different predicate classes, much like English. The differences with respect to the completion and ending requirements are a result not of the meaning of the perfective, but of the meaning of the predicate classes with which the perfective combines. Along the lines of Kinkade (1996) who claims that the perfective is always the unmarked category in Salishan aspectual systems, and following Mattina (1993) who specified this was the case in Okanagan, I claim that the unmarked form of a Sḵwx̱wú7mesh predicate is perfective. It contrasts with sentences marked with the imperfective morpheme (the auxiliary *wa*) and the progressive morpheme (the CV- reduplicant). This parallels English in that "viewpoint [in English] is indicated by the presence or absence of the verbal auxiliary" (Smith 1997: 170). Smith suggests that perfective is "phonetically zero" in English "contrasting with the

[16] Recall that Wilhelm argues that all predicate classes in Dëne Sųłiné have completion entailments. In

auxiliary morpheme which conveys the imperfective, progressive viewpoint" (Smith 1997: 170):

(42) a. Mary talked. (perfective)
b. Mary was talking. (progressive)

(Smith 1997: 170, ex. (1))

In the following section I apply a standard perfective analysis to the aspectual classes, which places the event time inside the reference time; this is illustrated schematically in (a), its semantics (following Kratzer 1998) is given in (b) and a paraphrase is given in (c):

(43) a. ------[Reference Time---- [---Event Time---]----]------

b. $\lambda P \lambda t \exists e\ [P(e) \wedge \tau(e) \subseteq t]$

c. A property of events *P* is mapped into a property of times and it is true of a time *t* just in case *t* includes the running time (τ) of a P-event.

In the following sections, I examine this claim with respect to the proposed representations of each predicate class.

4.1. Perfective activities

Given the representation in (a) for activities and the meaning of the perfective in (b) (I have changed P to Q in (b) in order to not confuse it with the P in (a)), the result is the representation of perfective activities in (c) below:

(44) *Perfective Activity*

a. $\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$

b. $\lambda Q \lambda t \exists e\ [Q(e) \wedge \tau(e) \subseteq t]$

c. $\lambda t.\exists e.[\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2) \wedge \tau(e) \subseteq t]$

---

particular, activities have completion entailments, not just termination entailments.

This suggests that the entire event time of (BECOME(P))(e_1) ∧ (DO(P))(e_2) must be included in the reference time; or, in other words, the running time of the event is included in t. Although I demonstrate in Chapter Two that an activity need not terminate within the reference time, an event that includes a BECOME event and a DO event does take place within the reference time. An example of a perfective activity is repeated below:

(45) na lulum lha slhanay'
RL sing DET woman
(i) 'The woman sang.'
(ii) 'The woman is singing.'

For both translations, that is, the past tense and present tense glosses, both the BECOME event and the DO event take place within the reference time. Crucially this suggests that even in the case of the seemingly "on-going" translation, the event includes the initial point. This contrasts with a progressive in that the initial point of a progressive is not included in the reference time. The following data using frame adverbials might provide the relevant evidence. With a perfective predicate (a), the initial point of the event seems to correspond with the initial point of the adverbial; however, with imperfective predicates (b), this need not be the case:

(46) a. na paym kwa John tiná7 ta nch'u7-k
RL rest DET John from DET one-o'clock
na7 t-7an'us-k
LOC OBL-two-o'clock
'John was resting from 1one until two.'
✓Context: started resting/went to rest at 1 o'clock
✗Context: went to rest before 1 o'clock

b. na wa paym kwa John tiná7 ta nch'u7-k
RL IMPERF rest DET John from DET one
na7 t-7an'us-k
LOC OBL-two-o'clock
'John was resting from one until two.'
✓Context: he went to rest before 1

4.2. Perfective accomplishments

The structure of accomplishments is given below along with the meaning of the perfective and the resulting representation of a perfective accomplishment:

(47) *Perfective Accomplishment*

a. $\lambda e.[DO(P))(e) \wedge [\forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates (e') in w'} \wedge \text{e causes e' in w'}]]]]$

b. $\lambda Q \lambda t \exists e [Q(e) \wedge \tau(e) \subseteq t]$

c. $\lambda t \exists e[(DO(P))(e) \wedge \forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates (e') in w'} \wedge \text{e causes e' in w'}]]](e) \wedge \tau(e) \subseteq t]$

The representation in (c) suggests that the entire event time of DO(P), in addition to the implicature, is contained within the reference time. Without any information to the contrary, the accomplishment will culminate, as the implicature predicts. This is what is expected given that the entire event could be completed within the reference time:

(48)

na	xel'-t-as	ta	sxwexwiy'am'	lha	Mary
RL	write-TR-3ERG	DET	story	DET	Mary

'Mary wrote a story.'
Speaker's comments: "She wrote it...she finished"

However, this need not be the case. Since the culmination of the accomplishment is only an implicature, rather than an entailment, perfective accomplishments do not have to culminate, and this is precisely the case:

(49)

na	xel'-t-as	ta	sxwexwiy'am'	lha	Mary
RL	write-TR-3ERG	DET	story	DET	Mary

iw'ayti	na7-xw	wa	xel'-t-as
maybe	RL-still	IMPERF	write-TR-3ERG

'Mary wrote a story. Maybe she's still writing it.'

As is seen with other aspectual classes, accomplishments might be expected to be glossed in the present as well as the past with what looks like an in-progress reading. In some sense, this is exactly what is observed:

(50) na mikw'-int-as ta lhxenptn lha Mary
RL wash-TR-3ERG DET floor DET Mary

i na7-xw wa mikw'-int-as
and RL-still IMPERF wash-TR-3ERG

'Mary is washing the floor and she's still washing it.'

However, unlike with activities, where the present reading is freely available with basic sentences and in out-of-the-blue contexts, accomplishments do not usually allow for present readings in these types of contexts. This is expected given that there is an implicature of culmination for accomplishments that derives from the addition of a control transitivizer; activities are not suffixed with control transitivizers and thus do not have the same implicature.

Again, the fact that perfective accomplishments in Skwxwú7mesh need not have terminated is also accounted for here; they are treated like activities in this sense. Since there is no culmination point in either Skwxwú7mesh activities or accomplishments, in the perfective, both have their event time contained inside the reference time. Activities can be continued without inducing any contradiction or ungrammaticality due to the fact that they have no final point; when the activity is continued, the perfective places a series of sub-events of the activity inside the reference time. Another series of sub-events is free to continue after that point as there is no final point that needs to be reached inside the reference time. The same argument goes through for accomplishments as they too lack a final point in the actual world.

4.3. Perfective achievements

Turning to achievements, as with the other classes above, the structure of the predicate is given in (a), the meaning of the perfective in (b), and the resulting representation of a perfective achievement is in (c):

(51) *Perfective Achievement*

a. $\lambda e.(\text{BECOME}(P))(e)$

b. $\lambda Q \lambda t \exists e\ [Q(e) \wedge \tau(e) \subseteq t]$

c. $\lambda t.\exists e[(\text{BECOME}(P))(e) \wedge \tau(e) \subseteq t]$

Here, the event time of BECOME(P) must be included in the reference time. This is precisely what is expected given that a change-of-state is what typically characterizes an achievement and it is translated in the past to convey that. An example is given below:

(52) a. tl'ik ta John
arrive DET John
'John got here.' / 'John arrived.'
Speaker's comments: "Can't mean he hasn't arrived yet"

4.4. Perfective inchoative states

Finally, perfective inchoative states have the representation below:

(53) *Perfective Inchoative States*

a. $\lambda e.\exists e_1 \exists e_2[e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)]$

b. $\lambda Q \lambda t \exists e\ [Q(e) \wedge \tau(e) \subseteq t]$

c. $\lambda t.\exists e[\exists e_1 \exists e_2[e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge P(e_2)) \wedge \tau(e) \subseteq t]$

This suggests that event time of BECOME P ∧ P must be included in the reference time, or, in other words, *t* includes the running time of the BECOME P ∧ P event. This is exactly what is desired given that perfective inchoative states are translated as both change-of-states (i) and statives (ii). Take the following as an example:

(54) chen t'ayak'
1S.SG angry
(i) 'I got angry/upset.'
(ii) 'I am angry.'

As with activities, this analysis suggests that even in the case of the stative reading in (ii), the initial point (the initial change of state sub-event) is part of the meaning of the predicate. For activities, I used time frame adverbials as a diagnostic of whether this was the case, but unfortunately, I do not have any data on time frame adverbials for inchoative states.

4.5. Summary

In this section I have shown that applying Kratzer's analysis of the standard perfective to the representations for the Sḵwx̱wú7mesh predicate classes proposed in Chapters Two and Three correctly predicts the observed readings of perfective predicates in Sḵwx̱wú7mesh. In the following section, I discuss some possible alternatives to this analysis of the perfective, ultimately rejecting them as they cannot fully account for the Sḵwx̱wú7mesh facts.

5. The alternatives

In this section, I explore two alternatives to the analysis presented in the previous section. I argue that it is not possible to account for the Sḵwx̱wú7mesh facts by claiming that the sentences that I propose are perfective by claiming that these sentences have null imperfective or progressive markers (§5.1). Although it has been claimed that languages without overt markers have neutral viewpoint, I argue that the Sḵwx̱wú7mesh data do not parallel data from those languages and thus perfective sentences cannot be re-analyzed as being in the neutral viewpoint (§5.2).

5.1. Alternative 1: Sḵwx̱wú7mesh has a null imperfective or progressive

Why not assume that what I am calling a null perfective marker is actually a null imperfective or progressive marker? Kratzer (2004) suggests that German has a non-overt imperfective operator with the following semantics:

(55) $\lambda P \lambda t \exists e\ [P(e) \wedge t \subset \tau(e)]$

(Kratzer 2004: 407, ex 30)

In other words, P is a property that is true of an event *e*, at any time *t* where *t* is properly contained in the running time of the event *e*.

Kratzer illustrates with the following example which she shows is a perfectly

grammatical answer to the English question "What are you doing (right now)?" spoken on a cell-phone in a bilingual conversation:

(56) Ich besteige (gerade) den Mount Monadnock.
I climb (right now) the Mount Monadnock.
'I am climbing Mount Monadnock (right now).'

(Kratzer 2004: 406, ex 29)

Kratzer explains that the imperfective operator "creates a property that is true of any time t just in case t is properly contained in the time of a successful climb of Mount Monadnock by me. This property is then applied to the reference time, which is thereby required to be a proper part of my climb. As a result, my climb is represented as an ongoing event". The accomplishments that co-occur with this operator do not have to culminate within the reference time, as shown above. However, as she further states, the speaker of the German sentence is committed to the culmination of the accomplishment event. This is illustrated by the following example where canceling the culmination outside of the reference time results in an ungrammaticality:

(57) a. Wieland saß damals (gerade) im Gasthaus
Wieland sat then (at the moment) in-the pub
und verspeiste einen Hummer.
and consumed a lobster.
'Wieland was sitting in the pub then and was consuming a lobster.'

b. # Er hätte bestimmt mehr als nur ein paar Bissen
He had certainly more than only a few bites
gegessen, wenn ihm ein übereifriger Kellner
eaten if him a over - zealous waiter
nicht den Teller weggenommen hätte.
not the plate away-taken had.
'He would certainly have eaten more than a few bites if an overzealous waiter hadn't taken his plate away.'

(Kratzer 2004: 407, ex 32)

Matthewson (2004) shows that while the German non-overt imperfective does not remove the culmination completely, and only places the culmination outside of the reference time, in St'át'imcets, the culmination can be removed completely. She illustrates with the following example:

(58) i ka-nrép-as-a tsícw-lhkan áku7 City Pizza-ha
when.PAST OOC-noon-3CONJ-OOC get.there-1SB.SUBJ DEIC City Pizza-DET
'At lunchtime I went to City Pizza.'

wa7 s-mítsaq láti7 s-Lémya7
IMPF STAT-sit DEIC NOM-Lémya7
'Lémya7 was sitting there.'

ts'áqw-an'-as ta pizza-ha
eat-DIR-3ERG DET pizza-DET
'She was eating pizza.'

nilh t'u7 s-tsún-ts-as 'ílhen ts7a! plán-lhkan meq'-7úl!'
FOC just NOM-say(DIR)-1SG.OBJ-3ERG eat DEMON already-1SG.SUBJ full-too
'Then she said, 'Eat this! I am too full.'

In (29), the event never culminated, though a perfective (zero-marked) predicate is used. The data below show that the same is true for Skwxwú7mesh. The sentence that creates the context contains an unmarked (perfective) predicate; the sentence that follows is also an unmarked (perfective) predicate. This sentence illustrates that the event did not culminate as the fish was never finished:

(59) Context: na **ilhen** ta sk'ey' lha Vanessa
RL **eat** DET smoked.salmon DET Vanessa
'Vanessa was eating/ate the fish.'[17]

Vanessa: chen mek'. ilhen chexw
1S.SG full. eat 2S.SG
'I'm full. It's your turn/you eat.'

[17] Although the object in this sentence can be considered [-SQA] in English (in Verkuyl's terms), and thus under a different analysis might be used to argue that these are simply activity predicates, the object of the sentence in

Further evidence is given in the following sequence where a non-culminating zero-marked perfective is given in the first sentence; the second sentence indicates that the original agent never completed the event:

(60) *Context: Mary finished fixing the car that I was fixing*

chen	p'ayak̲-an	ta	tetxwem		
1S.SG	fix-TR	DET	car		
	welh	haw	k̲-an	i	huy-nexw
	CONJ	NEG	IRR-2CNJ	PART	finish-TR(LC)

'I fixed the car, but I didn't finish it...'

na	huy-n-em	lha	Mary		
RL	finish-TR(LC)-INTR	DET	Mary		
	s-es	p'ayak̲-ant-as		ta	tetxwem
	NOM-3POSS	fix-TR-3ERG		DET	car

'...Mary finished fixing the car.'

Furthermore, assuming the presence of a null imperfective or progressive does not account for the out-of-the-blue judgments, namely, that accomplishments are interpreted as having culminated with no evidence to the contrary (see (2a) above and Chapter Two for further discussion). If there were a null imperfective or progressive morpheme in these basic sentences, I would expect imperfective or progressive out of the blue judgments, but they are never observed.

Moreover, to claim that there is a null imperfective or progressive in these Sḵwx̲wú7mesh sentences is not appealing because there already exist morphemes in the language that correspond to an imperfective and a progressive; these are *wa* and the CV-reduplicant respectively and examples are illustrated below. *wa* induces typical imperfective readings, progressive (a) and habitual (b) and the CV- reduplicant induces the typical progressive reading (c):

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(28) would most likely be considered [+SQA] in English. See also Chapter One for further discussion on Sḵwx̲wú7mesh DPs.

(61) a. na wa ilhen ta mixalh
RL wa eat DET black.bear
'The bear is eating.'

b. na wa lhelh-sp'utl'em kwa John
RL wa ingest-smoke DET John
'John smokes/is a smoker.'

c. na we-wlhkw-m ta stakw
RL REDUP-boil-INTR DET water
'The water is bubbling.'

The contrast between the perfective and imperfective marked sentences is seen clearly with punctual clauses (see Chapter Three for detailed discussion):

(62) a. na shupn lha Carrie
RL whistle DET Carrie

kwi s-es tin-tin ta new'tstn
DET NOM-3POSS REDUP-ring DET phone

'Carrie whistled when the phone rang.'
×Context: Carrie was whistling
Speaker's comments: "You said whistled ...shushpn [reduplicated form] is for whistling"[18]

b. na wa shu-shpn lha Carrie
RL IMPERF REDUP-whistle DET Carrie

kwi s-es tin-tin ta new'tstn
DET NOM-3POSS REDUP-ring DET phone

'Carrie was already whistling when the phone rang.'[19]

(63) a. chen itut kwi s-es huy-nexw ta sxwexwiy'am'
1S.SG sleep DET NOM-3POSS finish-TR(LC) DET story
'I went to sleep when he finished the story.'

[18] The claim that the CV- reduplicant is the Skwxwú7mesh progressive marker was first put forth in Bar-el (2003a).
[19] The speaker only offered "already whistling" for a gloss; I take this translation to be an appropriate one.

b. chen wa i-7tut
1S.SG IMPERF REDUP-sleep

kwi s-es huy-nexw ta sx̲wex̲wiy'am'
DET NOM-3POSS finish-TR(LC) DET story

'I was sleeping when he finished the story.'

Finally, I argue that if I were to assume that Sk̲wx̲wú7mesh sentences unmarked for viewpoint contained a null imperfective or progressive marker, I might predict that a sentence where the event is asserted to continue would be tautology; that is, if the sentence was imperfective, and thus on-going, to assert that it was still taking place would be asserting the same thing (as in English 'John is sleeping and he is still sleeping').[20] A tautology should result in an infelicity judgement, which is not induced by the Sk̲wx̲wú7mesh sentences under examination here. Even Sk̲wx̲wú7mesh perfective sentences that are translated by speakers in the present progressive (as in (b), are not judged infelicitous):

(64) a. na x̲el'-t-as ta sx̲wex̲wiy'am' lha Mary
RL write-TR-3ERG DET story DET Mary

iw'ayti na7-xw wa x̲el'-t-as
maybe RL-still IMPERF write-TR-3ERG

'Mary wrote a story. Maybe she's still writing.'

b. na lhen'-t-as ta hem'ten lha Linda
RL weave-TR-3ERG DET blanket DET Linda

iw'ayti na7-xw wa lhen'-t-as
maybe RL-still IMPERF weave-TR-3ERG

'Linda's making a blanket, maybe she's still making it.'

This section has shown that Sk̲wx̲wú7mesh sentences unmarked for imperfective that in some cases appear to have imperfective readings, in fact, have no "null" imperfective, and are actually perfective. In the following section, I argue that although perfective sentences are unmarked, they do not exhibit the neutral viewpoint.

[20] In the case of present tense sentences, as in the translation of (64b).

5.2. Alternative 2: Sḵwx̱wú7mesh has a *neutral* viewpoint

Smith (1997) suggests that languages can have a neutral viewpoint which allows both "open and closed" readings.[21] She argues that "sentences, which have neither a perfective nor an imperfective morpheme, should be analyzed as having the Neutral viewpoint. The neutral viewpoint is a default with a positive semantic value. It arises in aspectual systems which allow sentences without a viewpoint morpheme" (p. 77). For her, the neutral viewpoint "focuses an interval which includes the initial point of a situation, and an initial stage. The latter provision will be vacuous for instantaneous situation types" (p. 128). Smith claims that Mandarin Chinese has the neutral viewpoint, as illustrated below:

(65) Zhangsan xiuli yitai luyinji
Zhangsan repair one CLtape recorder
'Zhangsan repaired/is repairing a tape recorder.'

(Smith 1997: 277, ex. 39)

Smith notes that this situation can be ongoing, terminated or completed. Furthermore, with the addition of when-clauses, sentences with the neutral viewpoint can be "open" or "closed" and thus the sentence below is appropriate in two different contexts given in (i) and (ii):

(66) Zhangsan dao jia de shihou, Mali xie gongzuo baogao
Zhangsan arrive home DE time, Mali write work report
(i) 'When Zhangsan arrived at home, Mali began to write the work report.'
(ii) 'When Zhangsan arrived at home, Mali was writing the work report.'

(Smith 1997: 278, ex. 42)

Smith further argues that French exhibits the neutral viewpoint in both the *Présent* and the *Futur*. Regarding the *Présent*, she shows that sentences in this tense generally present open situations (a); however, with *when*-clauses (b), the closed interpretation is not only allowed, but is preferred. Thus she argues, the *Présent* cannot be imperfective as it cannot account for the closed reading of (b):[22]

[21] As far as I can tell, *open* corresponds to "imperfective" and *closed* corresponds to "perfective".

(67) a. Jean mange une pomme
Jean eats DET.F apple
'John is(PRES) eating an apple.'

(Smith 1997: 201, ex. 20a)

b. Marie sourit toujours quand Paul arrive à la maison
Marie smiles always when Paul arrives at DET.F house
'Mary always smiles(PRES) when Paul gets(PRES) gets home.'

(Smith 1997: 201, ex. 21)

The *Futur* tense in French is argued by Smith to behave in the same way; the following sentence has two interpretations (an imperfective and inceptive) which is further emphasized by the possible questions that can be asked (b-c):

(68) a. Jean entrera dans le bureau quand Marie dormira
Jean will.enter in DET.M office when Marie will.sleep
'Jean will enter(FUT) the office when Marie will sleep(FUT).'

b. Est-ce qu'elle sera en train de dormir, au moment de l'entrée
'Will she be(FUT) in the midst of sleeping?'

c. Elle commencera à l'entrée de Jean?
'Will she begin(FUT) when Jean enters?'

(Smith 1997: 202-3, ex. 25-6)

According to Smith, Navajo also has the neutral viewpoint. The overlapping/simultaneous events, or the sequential events in the following sentences are meant to demonstrate that the neutral viewpoint allows both open and closed interpretations:[23]

(69) a. dibé anishka'go hataał
'When I herd sheep, he sings.'

b. dibe nanishkaadgo hataał dooleeł
'When I herd sheep, he will sing.'

---

[22] Smith does not address here that the French présent behaves as though it were a typical imperfective as it invokes both habitual and progressive readings. Furthermore, it is not clear why (b) is considered a closed interpretation; it seems as though it is a habitual, which are expected to be open (with closed sub-events).
[23] There are no interlinear glosses for the Navajo data.

c. shizhé'é doogááł indago, da'diidį́į́ł
'When my father comes, then we'll eat.'

d. hastiin ná'ádlį́į́hgo, ch'ínáshdááh
'When my husband drinks, I leave.'

(Smith 1997: 305, ex. 18)

Smith suggests that the data in (a-b) are "probably simultaneous", the data in (c) presents events with sequential interpretation while the data in (d) presents an overlapping interpretation ("durative and instantaneous event, naturally taken as overlapping").[24]

Although she uses different terms to describe the data in Chinese, French and Navajo, and with the exception of the accomplishment in the Chinese data in (36) and (37), the example sentences consist of activities, I assume that Smith concludes that the facts for the neutral viewpoint hold for both activities and accomplishments in all three languages.[25] To summarize the facts for these three languages with neutral viewpoints, Smith claims that sentences with neutral viewpoint have both what she calls "open" and "closed" readings (which I assume to be imperfective and perfective, respectively). Thus, sentences such as these will be appropriate in both perfective and imperfective contexts. For each of her examples, the perfective/closed reading is an inceptive or sequential reading, while the imperfective/open reading is an on-going or simultaneous reading.[26] This is summarized in the chart below:

[24] While I am not quite sure what Smith means here, I assume it is that the *when*-clause is durative and the second clause is instantaneous; together they yield an overlapping reading where the event of the *when*-clause is in progress when the event of the second clause takes place.

[25] I am setting aside states as there is not enough data to assume what Smith's claims would be; as for achievements, Smith states that for each language in this set, the neutral viewpoint cannot focus on what she calls "preliminary stages". As these claims involve a number of assumptions that I do not make here, I will set these two classes aside and focus on accomplishments and activities as the contrast between these two in Sk̲wx̲wú7mesh raises enough doubt as to whether the sentences that I am claiming are marked perfective are actually neutral viewpoint.

[26] I assume that by simultaneous, Smith means that the events of both clauses are on-going at the same time, while sequential suggests that the inception of one event occurs at the same time as the other instantaneous event.

(70) *Neutral Viewpoint: Smith (1997)*

	Activities/Accomplishments (+when clause)	
	Open	**Closed**
Chinese	on-going	Inceptive
French (Présent)	Simultaneous	Sequential
French (Futur)	on-going	Inceptive
Navajo	Simultaneous	Sequential

I argue that evidence from Sḵwx̱wú7mesh suggests that these same types of sentences do not have neutral viewpoint.

Parallel data from Sḵwx̱wú7mesh show that activities in sentences lacking overt viewpoint marking have inceptive ("closed") readings only when modified by punctual clauses (see Chapter Three for further discussion). For an "open" or on-going reading, sentences with activities require the overt imperfective marker *wa* or the progressive CV reduplicant:[27]

(71) a. chen x̱aa-m kwi s-es tl'iḵ kwa John
1S.SG cry-INTR DET NOM-3POSS arrive DET John
'I cried when John got here.' UNMARKED

b. chen wa x̱aa-m kwi s-es tl'iḵ kwa John
1S.SG IMPERF cry-INTR DET NOM-3POSS arrive DET John
'I was crying when John got here.' IMPERFECTIVE
Speaker's comments: "You say this if you had been crying for a while before"

(72) a. chen itut kwi s-es huy-nexw ta sx̱wex̱wiy'am'
1S.SG sleep DET NOM-3POSS finish-TR(LC) DET story
'I went to sleep when he finished the story.' UNMARKED

b. chen wa i-7tut
1S.SG IMPERF REDUP-sleep
kwi s-es huy-nexw ta sx̱wex̱wiy'am'
DET NOM-3POSS finish-TR(LC) DET story
'I was sleeping when he finished the story.' IMPERFECTIVE

[27] I use punctual clauses here as a diagnostic to provide both perfective and imperfective contexts.

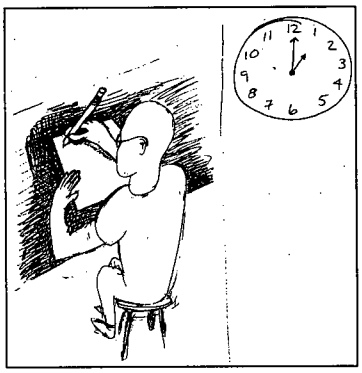
As seen in Chapter Three, accomplishment predicates in sentences lacking overt viewpoint marking have a variety of readings when modified by punctual clauses. They have two types of closed/perfective readings, inceptive (a) and culminating (c), as well as an open/imperfective on-going reading (b). An example is given below:

(73) na **xel'-t**-as ta sxwexwiy'am kwa John
RL **write-TR**-3ERG DET story DET John
na7 t-kwi an'us-k
LOC OBL-DET two-o'clock

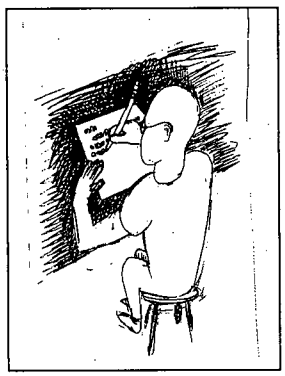
'John wrote the story at 2 o'clock.'

Contexts:

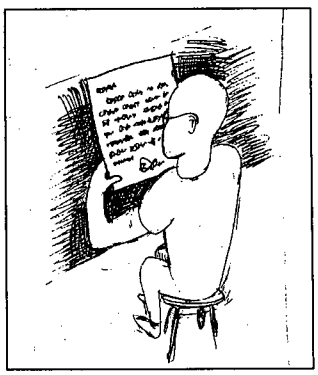
✓(a) inceptive:



✓(b) medial:



✓(c) culminating:



These data illustrate that there is a contrast between activities and accomplishments modified by punctual clauses in Skwxwú7mesh sentences unmarked for viewpoint; activities have only perfective (closed; inceptive) readings while accomplishments have both perfective (closed; inceptive, culminating) and imperfective (on-going) readings. If these Skwxwú7mesh sentences had the neutral viewpoint, both classes should behave the same in having both open and closed readings; in particular, activities should have an additional open reading that is not observed. I take this to be evidence against the neutral viewpoint.

H. Davis (p.c.) suggests that the neutral viewpoint analysis could still be upheld with the additional assumption that the aspectual properties of the predicate would 'colour' the neutral perfective. This would require a formal analysis of how this 'colouring' takes place, which is an extra step that I suggest can be avoided given the claim that these are in fact

perfective forms. The difference between activities and accomplishments in Sḵwx̱wú7mesh can be accounted for by their representations, not the meaning of the perfective.

6. Conclusion

In this chapter, I have shown that although sentences in Sḵwx̱wú7mesh not overtly marked for imperfective share some of the same properties as other "non-standard" perfectives, the Sḵwx̱wú7mesh facts suggest that the perfective is of the standard type. I showed that Sḵwx̱wú7mesh does not have a completive perfective (as is claimed for Dëne Sųłiné), a semi-perfective (as is claimed for Thai), nor a neutral perfective (as is claimed for Hindi). Instead, I argue that Sḵwx̱wú7mesh has a standard perfective, along the lines of English. However, unlike in English, Sḵwx̱wú7mesh accomplishments do not have culmination entailments or termination entailments. I argue that this is due not to the meaning of the perfective, but the meaning of the predicates. Adopting Kratzer's (1998) analysis of the perfective, I showed that the proposed representations of Sḵwx̱wú7mesh predicates predict the readings of perfective predicates that are exhibited in the language. I ended the chapter by examining, and ultimately rejecting two possible alternatives to the analysis; in particular, I argued that unmarked sentences in Sḵwx̱wú7mesh cannot be claimed to have null imperfective or progressive markers, nor can they be claimed to be in the neutral viewpoint.

Chapter 5: Imperfectivity

Along with the lack of a clear distinction between aspect and aktionsart, there have been many terminological confusions in scholarship on this topic...some of the overlaps and confusions in the terminology of aspect...

Category	***Terms***
imperfective	*imperfective, progressive, imperfect, linear, continuative, durative, cursive*

(Brinton 1988: 4-5)

1. Introduction

In Chapter Four, I showed that the meanings that arise from perfectively marked predicates are predictable based on the proposed representations of the predicates. In addition, I examined where Sḵwx̱wú7mesh fits into the typology of the perfective; I showed that while Sḵwx̱wú7mesh exhibits surface similarities with a range of perfectives cross-linguistically, the evidence points to a standard perfective. In this chapter, I extend this discussion further by looking at the expression of imperfectivity in Sḵwx̱wú7mesh. As in the discussion of the perfective, I show that the meanings that arise from imperfectively marked predicates are predictable based on the proposed representations of the predicates. I also examine where Sḵwx̱wú7mesh fits into the typology of the imperfective

The chapter is organized as follows. I first provide an overview of the behaviour of the imperfective in Sḵwx̱wú7mesh (§2). Next, I examine the typology of imperfectivity, looking first at the progressive and then at the imperfective. For each viewpoint, I provide a brief cross-linguistic view, and then introduce a few analyses. I argue that the CV reduplicant is the Sḵwx̱wú7mesh progressive marker and the morpheme *wa* is the Sḵwx̱wú7mesh imperfective marker (§3). Using the proposed predicate representations for Sḵwx̱wú7mesh established in Chapters Two and Three, I present an analysis of progressive predicates, adopting Dowty's (1979) analysis of the progressive (§4). I then present an analysis of imperfective predicates, adopting Kratzer's (1998) analysis of the imperfective (§5). Next, I briefly discuss the co-occurrence of *wa* and the CV reduplicant and its consequences for the analysis (§6). I then discuss the issue of verbal aspect and outline an analysis of the two

morphemes as pluractional markers (§7). I end the chapter with some concluding remarks (§8).

2. Imperfectivity in Sḵwx̱wú7mesh: overview

Sḵwx̱wú7mesh has at least two morphemes that seem to give rise to imperfectivity: (i) the auxiliary *wa* and (ii) the CV reduplicant. Kuipers (1967) suggests that the auxiliary *wa* is associated with the notions of continuousness and iterativity and that the CV reduplicant is associated with the notions of continuousness, durativity, frequentativity, and intensitivity.

Sentences containing the auxiliary *wa* are often translated as habitual events in the relevant context; this is shown in the examples below:

(1) a. Peter na **wa** **teh**-im' ta lam' nilh sts'íts'ap'-s
Peter RL **wa** **make**-INTR DET house FOC work-3POSS
'Peter builds houses, that's his job.'

b. na **wa** **lhelh-sp'utl'em** kwa John
RL **wa** **ingest-smoke** DET John
'John smokes/is a smoker.'

However, sentences containing the auxiliary *wa* can also be translated as events in progress in the relevant context.[1] This is illustrated by the data below:

(2) a. na **wa** **ilhen** ta mix̱alh
RL **wa** **eat** DET black.bear
'The bear is eating.'

b. chen-t **wa** **x̱aa-m**
1S.SG-PAST **wa** **cry-INTR**
'I was crying.'

CV- reduplicated predicates are translated as events in progress; this is illustrated by the data below:

[1] In out of the blue contexts, an in progress translation, rather than a habitual translation, is usually volunteered.

(3) a. chen i-7ilhen
1S.SG **REDUP-eat**
'I'm eating.'[2]

b. na **we-wlhkw**-m ta stakw
RL **REDUP-boil**-INTR DET water
'The water is bubbling.'

CV- reduplicated predicates are not associated with habitual readings; these readings require *wa*.[3]

When applied to an inchoative state, such as 'get angry', the addition of *wa* (4b) or the CV reduplicant (4c) yields stage-level stative readings:

(4) a. chen **t'ayak'** kwi s-es tl'ik ta John
1S.SG **angry** DET NOM-3POSS arrive DET John
'I was/got angry when John arrived.'
Speaker's comments: "It's because John came in that I'm angry"

b. chen **wa** **t'ayak'** na7 t-kwi an7us-k
1S.SG **IMPERF** **angry** LOC OBL-DET two-o'clock
'I was mad at two o'clock.'

c. chen **t'a-t'ayak'** kwi s-es tl'ik ta John
1S.SG **REDUP-angry** DET NOM-3POSS arrive DET John
'I was angry when John arrived.'

In many cases, speakers prefer a reduplicated form as well as *wa*; an example is illustrated by the sentence below:

(5) chen **wa** **t'a-t'ayak'**
1S.SG **IMPERF** **REDUP-angry**
'I am angry.'

These facts are summarized in the table in the table below:

[2] In at least one elicitation session, a speaker offered the translation 'I'm continuously eating' for this sentence. While it is not clear what type of interpretation this actually is, I hesitate to suggest that this is a habitual reading as this is **never** the strategy used for expressing habituality.
[3] Unfortunately, I have no negative data that shows the habitual reading is unavailable.

(6) *Sḵwx̱wú7mesh Imperfective markers*

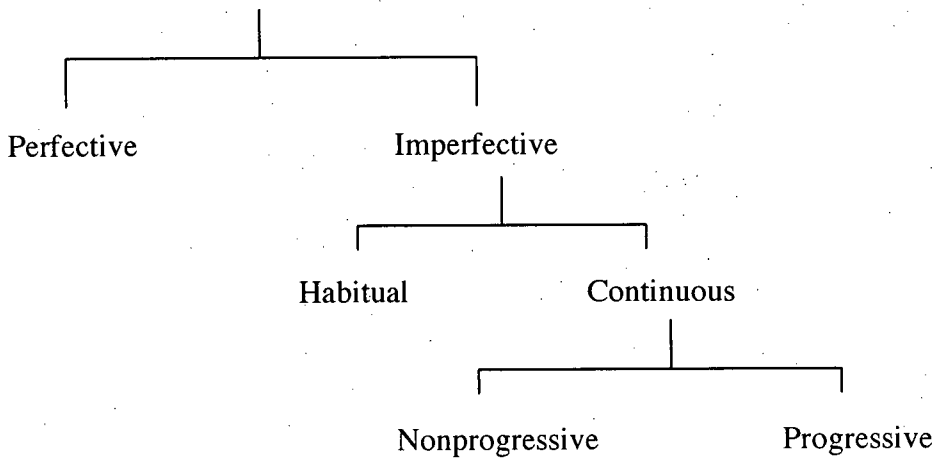
	Habitual	In progress	Stative
wa	✓	✓	✓
CV-	✗	✓	✓

In this chapter, I propose that *wa* is the Sḵwx̱wú7mesh imperfective marker and the CV-reduplicant is the Sḵwx̱wú7mesh progressive marker. In the following section, I present some background on these two types of markers from a typological perspective as well as a theoretical perspective, with the intent of motivating these claims.

3. Sḵwx̱wú7mesh and the typology of imperfectivity

Comrie (1976) suggests that languages that grammaticalize aspect distinguish between at least two classes: perfective and imperfective. He describes imperfectivity as "explicit reference to the internal structure of a situation; viewing a situation from within"; perfectivity is the lack of this explicit reference. Many languages have a single category to express imperfectivity, though there are languages where it is further subdivided into distinct categories, Comrie identifies the most typical case as that given below; imperfective is grouped into two main classes: habitual and continuous. Continuous can then be subdivided further into the class of nonprogressive and progressive:

(7) *Aspectual Oppositions* (Comrie 1976:25)



A habitual event is contrasted with a continuous event as the former is defined by Comrie as one which describes "a situation which is characteristic of an extended period of time, so extended in fact that the situation referred to is viewed not as an incidental property of the moment, but precisely, as a characteristic feature of a whole period" (p. 27-28). As an example, Comrie offers the following sentence from English, where the habitual form is available in the past tense:

(8) Sally used to throw stones at my window in the morning.

(Comrie 1976:28)

The sentence above is inappropriate if Sally only threw stones two or three times; however, if she did it every morning for three years, it would be felicitous.

While an in-progress reading is available for some imperfectives (and thus, it is often difficult to tell whether they are progressives or imperfectives), imperfectivity is characterized by the fact that habituality is in some languages a possible reading of the imperfective, whereas this is not the case for the progressive. Comrie defines progressiveness as the "combination of progressive meaning and nonstative meaning" (p. 35); a consequence of this is that stative verbs do not have progressive forms, since, as Comrie puts it "this would involve an internal contradiction between the stativity of the verb and the nonstativity essential to the progressive". (p. 35).[4]

The auxiliary *wa* and the CV reduplicant are good candidates, given their translations and the contexts in which they are used, for an imperfective and progressive marker, respectively. As such, in this section I examine these notions of imperfectivity from a cross-linguistic perspective in order to understand where Sḵwx̱wú7mesh fits into this typology. I begin with the progressive.

3.1. The progressive

In this section, I first examine the progressive from a cross-linguistic perspective and show that the Sḵwx̱wú7mesh CV- reduplicant is a good candidate for the Sḵwx̱wú7mesh

[4] Comrie does discuss the nonstative use of stative verbs in English such as *I'm understanding more about quantum mechanics as each day goes buy* (see Comrie 1976).

progressive morpheme. I then discuss a few analyses of the progressive, but adopt a Dowty type analysis to be used in later sections to analyze the Sḵwx̱wú7mesh progressive.

3.1.1. A cross-linguistic look

Surveying a variety of languages from a number of different language families, Dahl (1985) suggests the following characteristics of the progressive cross-linguistically:

(9) a. Tendency to be marked periphrastically
b. The prototypical uses can be categorized as "on-going activity"
c. Usually (almost) independent of time reference
d. Infrequently extended to habitual meaning
e. Normally used in non-stative situations[5]

The behaviour of the Sḵwx̱wú7mesh CV- reduplicant suggests that it too is a progressive marker. While it is unclear whether a reduplicant is considered periphrastic marking, the relevant fact is that Dahl suggests this is only a tendency for the progressive. The meaning of the CV reduplicant in Sḵwx̱wú7mesh seems to exactly match the prototypical use of the progressive, namely, as an "on-going activity". This is emphasized not only by the English progressive (*-ing*) translations provided by speakers, but also by the additional comments volunteered (*in the process of*), as the example below illustrates:

(10) na p'a-p'ayak-ant-as ta snexwilh-s
RL REDUP-repair-TR-3ERG DET canoe-3POSS
'He's in the process of fixing it.'

With respect to Dahl's time reference (c) criteria, the CV- in Sḵwx̱wú7mesh is also independent of time reference in that it can be used in past (a) present (b) and future (c) sentences. This is illustrated by the data below:

[5] It is not quite clear whether this is intended to mean that the progressive does not attach to stative verbs or whether the progressive is not normally used to describe a stative situation. I assume that the former is the intended interpretation (e.g. English *I am knowing the answer).

(11) a. chen-t i-7tut na7 t-kwi an'us-k
1S.SG-PAST REDUP-sleep LOC OBL-DET two-o'clock
'I was sleeping at two o'clock.' PAST

b. chen i-7imesh
1S.SG REDUP-walk
'I'm walking.' PRESENT

c. nam' chen ek' i-7imesh kwayl-es
go 1S.SG FUT REDUP-walk next.day-3CNJ
'I will go walking tomorrow.' FUTURE

In accordance with Dahl's typology, the Skwxwú7mesh CV- alone cannot be extended to habitual meaning; note, however, that with the addition of other habitual morphology, this is possible. For example, in the following set of sentences, the (a) example illustrates that a habitual reading is not possible for the CV reduplicated predicate; the sentence in (b), on the other hand, illustrates that a habitual reading is possible, provided that both *lhik'* 'always' and *wa* 'imperfective' are present:

(12) a. chen kw'a-kw'ay'
1S.SG REDUP-hungry
'I'm hungry.'
*'I get hungry often.'

b. lhik' chen wa kw'a-kw'ay'
always 1S.SG IMPERF REDUP-hungry
'I'm always hungry.'

With respect to Dahl's final parameter (the progressive is normally used in non-stative situations), the question is slightly more complicated to answer for Skwxwú7mesh. I first have to consider the contrast between stage-level and individual-level states; the CV reduplicant cannot attach to individual-level states, as shown below:

(13) a. ? hi-hiyi ti mixalh
REDUP-big DET black.bear

b. ? tl'a-tl'aktay'kwem
REDUP-tall

However, it is the case that the CV reduplicant can attach to inchoative states in Sḵwx̱wú7mesh, the result of which is a stative reading. This is illustrated below:

(14) a. chen kw'a-kw'ay'
1S.SG REDUP-hungry
'I'm hungry.'

b. chen lhe-lhchiws
1S.SG REDUP-tired
'I'm tired.'

Recall that Sḵwx̱wú7mesh inchoative states differ from English states in that the former have an initial change of state (represented as an initial BECOME sub-event) built into the representation while English states do not.

Bertinetto, Ebert and de Groot (2000) suggest the following test to determine whether a language has a dedicated progressive form that is independent of an imperfective. Speakers are asked to consider a context (given in the square brackets below) and then give a translation of sentences. The words in capitals are the predicates whose forms are the focus here:

(15) a. [somebody on the phone wants to know about Ann- she is next to me]
She WORK right now.

b. What does Ann do every Saturday morning?
She CLEAN THE HOUSE/READ.

To say that a language has a specific progressive form, Bertinetto et al. suggest that either of the following statements must be true:

(16) (i) It should be possible to use a different form in the two sentences, or

(ii) The language must at least have available an alternative form in the (a) sentence that is not available in the (b) sentence.

By this parameter, Sḵwx̱wú7mesh *CV-* is a progressive form since *CV-* or *wa* is available for (a) but *wa* must be present in (b) type sentences.[6]

Smith (1997) conducts a comparative study of five languages and observes that three of them, English, Navajo and Mandarin Chinese, have progressives, while the remaining two, Russian and French, do not. The habitual reading is absent for the progressive in each language. Of the readings that are available, Smith suggests that one reading for these progressives is a focus on the "internal stage" of the event. As Smith notes with respect to English *-ing*, "the English progressive focuses on the internal stages of durative, non-stative situations" (p. 171), as illustrated by the following examples:

(17) a. Mary was walking in the park. ACTIVITY

b. Sam was eating an apple. ACCOMPLISHMENT

(Smith 1997: 171, ex. 6b-c)

However, the following sentence, while it has the same form as the progressive, Smith argues is a different viewpoint, namely the resultative imperfective:

(18) a. Your drink is sitting on the table.

b. The picture was hanging on the wall.

(Smith 1997: 173, ex. 13a-b)

Smith suggests that these are resultatives since they focus on an interval that follows a change of state, or a "resultative stage". She notes that these are limited to verb constellations of position and location and suggests that the interval being focused on is not dynamic. Moreover, Smith shows that that some sentences are ambiguous between the internal stage and resultative stage readings, as illustrated by the example below:

[6] While for Bertinetto et al.'s test, the speaker is meant to read the sentences and translate the predicates in CAPITALS, here, I base the Sḵwx̱wú7mesh results on elicitations of these contexts.

(19) John was sitting in the chair.
(i) Context: John is assuming a seated position[7] ACCOMPLISHMENT READING
(ii) Context: John is already seated STATIVE READING
(Smith 1997: 173, ex. 15)

Smith thus argues that *–ing* in English is ambiguous between being a progressive and an imperfective; however, she is left to try to account for why the same form is used for these two viewpoints and why the resultative imperfective in English is limited to position and location verb constellations.

Smith claims that these sentences are semantically stative according to various tests, including the pseudo-cleft do construction which she says requires a non-stative; this is illustrated below:

(20) *What your drink was doing was sitting on the table.
(Smith 1997: 173, ex. 14)

However, notice that if the subject was *John*, the generalization is lost, suggesting that this test is about something other than stativity (the sentence is OK on BOTH readings):

(21) What John was doing was sitting on the table.
(i) Context: John was assuming a seated position ACCOMPLISHMENT READING
(ii) Context: John was already seated STATIVE READING

Furthermore, progressives that do not result from a change of state (in Smith's terms) also test as statives.

I argue that by treating these as separate viewpoints, Smith failes to capture the fact that statives and progressives are related. It is well-known that in some languages statives cannot be marked by the progressive (Dahl 1985); Bennett and Partee (1978) even suggest that states are defined by the fact that they do not get marked with the progressive. Vlach (1981) claims that the reason that statives cannot appear with the progressive is due to the fact that progressives are statives, and thus adding something that creates a state (the

[7] This reading is not available for all speakers, though Smith does not mention whether this is the case in her data set.

progressive *-ing* in English) to a state is redundant. By treating the English progressive and resultative as separate viewpoints glosses over these facts.

One predicate class I have not yet shown examples of is achievements. Progressive achievements have been the focus of many discussions in the aspectual literature (Rothstein 2004, Mittwoch 1991, Verkuyl 1989, among others). Given that achievements are "instantaneous" events, they are not expected to occur in the progressive, as many examples seem to show:

(22) a. #Jane is reaching the summit of the mountain.

b. #Mary is spotting her friend at the party.

(Rothstein 2004: 36, ex. 1)

However, there are many achievement predicates that are perfectly felicitous in the progressive. The following are some examples:

(23) a. The old man is dying.

b. The plane is landing.

(Rothstein 2004: 36, ex. 2d-e)

Smith (1997) suggests that an achievement has a process that is detachable from the event itself and that languages differ as to whether these processes can be focused in the progressive. Thus, for Smith, it is not that achievements differ from language to language, but the progressive viewpoint does. In English, the progressive presents a "preliminary" stage of the achievement event. This is illustrated below:

(24) Mary was reaching the top.

(Smith 1997: 42; ex. 11b)

The progressive in Navajo, however, does not have this property. Smith argues that the Navajo progressive can only focus on the internal stages of an event, and uses the following example as an illustration:

(25) 'awée'' tsásk'eh yikáá'' dóó adah yigoh
'The baby is in the process of falling from the bed (prog).'

(Smith 1997: 304, ex 15a)

According to Smith, the above sentence "cannot be taken as referring to a preliminary stage, before a fall actually occurs" (p. 304). Finally, in Mandarin Chinese, Smith argues that achievements are ungrammatical in the progressive, as the following examples are meant to show:

(26) a. * Ta zai ying sai pao
he ZAI win race run
'He is winning the race.'

b. * Lao Wang zai si
Old Wang ZAI die
'Old Wang is dying.'

(Smith 1997: 272, ex 23)

Skwxwú7mesh achievements can undergo CV reduplication in some cases; when they do, the readings are parallel to "preliminary stage" readings that Smith claims for English. This is shown by the data below:

(27)	na	xe-xelk'-em	ta	skakl	na7	ta	yay'wes
	RL	REDUP-fall-INTR	DET	baby	LOC	DET	bed

'He's falling off the bed.'
Speaker's comments: "He could be rolling off the bed"

Perhaps the most distinct feature of the CV reduplicant (as well as the imperfective *wa*) in Skwxwú7mesh when paralleled with other progressives cross-linguistically is the fact that it seems to be able to derive a stative reading:

(28)	chen	**t'a-t'ayak'**	kwi	s-es	tl'ik	ta	John
	1S.SG	**REDUP-angry**	DET	NOM-3POSS	arrive	DET	John

'I was angry when John arrived.'

Interestingly, the *–te iru* construction in Japanese shares this feature with Skwxwú7mesh.

Following Kindaichi (1950), Ogihara (1998) discusses examples of the *–te iru* construction in Japanese, which seem to give rise to both on-going process readings with what Kindaichi calls durative verbs (activities and accomplishments) and result state readings with what Kindaichi calls instantaneous verbs (achievements).[8] Sentences of these types are illustrated below:[9]

On-going process readings: activities and accomplishments[10]

(29) a. Taroo-wa ima ie-o tate-**te iru**
Taro-TOP now house-ACC build- **TE IRU-Pres**
'Taro is now building a house.' ACCOMPLISHMENT

b. John-wa ima tabe-**te iru**
John-Top now eat-**TE IRU-Pres**
'John is eating (now).' ACTIVITY

(Ogihara 1998: 87, ex. 1a, 25a)

Result state readings: achievements

(30) a. Hito-ga asoko-de sin-**de iru**
person-NOM there-at die- **TE IRU-Pres**
'There is a body there.' (Lit.: 'A man is dead there.')

b. Ko-no ha-ga oti-te iru
tree-Gen leaf-Nom fall-TE IRU-Pres
'There are fallen leaves (on the ground).'[11]

c. Sono ronbun-wa syuppansa-re-te iru
that paper-Top publish-PASS-TE IRU-Pres
'That paper is published.'

d. Ie-ga tubure-te iru
house-Nom collapse-TE IRU-Pres
'There is a collapsed house over there.'

(Ogihara 1998: 87, ex. 1b, 3a-c)

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[8] *-te iru* marked sentences also have "experience" interpretations with both types of predicates (see Ogihara 1998 for further discussion).

[9] These classes are given different labels by Ogihara; the reader is referred to the article for detailed discussion.

[10] A Japanese speaker confirms that these sentences are grammatical without *ima* 'now', and have the same interpretation.

[11] Some speakers allow this sentence with an on-going interpretation as well.

Activities and accomplishments marked with *–te iru* have on-going interpretations and do not entail that events will culminate; on the other hand, achievements have result state interpretations and entail that result state. Regarding (30a) above, Ogihara suggests that while "the interpretation of [(a)] somewhat resembles that of 'The man has died'...its "main focus" is the current result state, rather than the past event that produced this state" (p. 88). The result state reading of the Japanese achievements in the *–te iru* contruction closely resemble the result state reading that Sḵwx̱wú7mesh inchoative states have when they are marked with the progressive CV.

The *–te iru* construction does not completely parallel Sḵwx̱wú7mesh in that, among other things, the Japanese marker is morphologically complex and made up of, what Ogihara argues, a temporal morpheme *-te* and an aspectual morpheme *iru*, each of which individually contribute to the meaning of the corresponding sentences. However, what is clear is that two different types of Japanese predicates marked with the same morphemes can yield on-going interpretations on the one hand and result state readings on the other, depending on the predicate class they attach to, much like the progressive CV reduplicant in Sḵwx̱wú7mesh.

To summarize this section, from a brief cross-linguistic look at the progressive, it would not be surprising to label the Sḵwx̱wú7mesh CV reduplicant a progressive marker in this language as it shares many of the same properties as other progressives. I now turn to a brief look at a few analyses of the progressive.

3.1.2. Analyses of the progressive

There have been a number of proposals to capture the meaning of the English progressive, which is the only expression of imperfectivity in the language. In this section, I examine a few of these proposals.

Bennett and Partee (1978) suggest the following truth conditions for the progressive:

(31) [PROG ϕ] is true at I iff I is a moment of time, there is an interval of time I' such that $I \subset I'$, I is not an endpoint for I', and ϕ is true at I'.

(Bennett and Partee 1979: 13)

Take for example, the following sentence:

(32) John was building a house at noon.

The truth conditions given above would suggest that *John is building a house* is true at a moment of time, e.g., *noon*, and if there is an interval of time, e.g., one month, and the moment of time, noon, is contained in that month and noon is not the final point of that month, and it is true that *John builds a house* during that month.

Dowty's analysis of the progressive draws on Bennett and Partee's, but he removes the requirement that *I* be a "moment of time"[12] and adds the notion of *inertia worlds*. The truth conditions are given below:

(33) [PROG ϕ] is true at $<I, w>$ iff for some interval I' such that $I \subset I'$ and I is not a final subinterval for I', and for all w' such that $w' \in Inr(<I, w>)$, ϕ is true at $<I', w'>$.
(Dowty 1979: 149, ex. 25)

Recall Dowty's definition of inertia worlds from Chapter Two:

(34) *Inertia Worlds (Dowty 1979: 148)*

Worlds which are exactly like the given world up to the time in question and in which the future course of events after this time develops in ways most compatible with the past course of events.

Thus, Dowty's truth conditions for the progressive will yield the following analysis: *John was building a house* is true at an interval of time, e.g., noon, in a given world, if and only if, there is an interval of time, e.g., one month, and the interval of time noon is contained in that month and noon is not a final subinterval for that month, and for all worlds that are members of the set of inertia worlds, it is true that *John builds a house* during that month in those worlds.

To illustrate Parsons (1990) event based analysis of the English progressive, consider the following example:

(35) Agatha was crossing the street.

[12] Dowty suggests in a footnote that moment of time only applies to present progressive sentences, and not past progressive (see Dowty 1979: 188, fn 4 for further discussion).

'was crossing' is classified as a stative verb form;[13] this is why the translation below uses *Hold* rather than *Cul(minate)*, which is used for perfective verb forms:

(36) a. Agatha was crossing the street.
b. $(\exists t)[t<now \wedge (\exists e)[crossing(e) \wedge Subject(e,Agatha) \wedge Object(e,the\ street) \wedge \mathbf{Hold}(e,t)]]$

(37) a. Agatha crossed the street.
b. $(\exists t)[t<now \wedge (\exists e)[crossing(e) \wedge Subject(e,Agatha) \wedge Object(e,the\ street) \wedge \mathbf{Cul}(e,t)]]$

(Parsons 1990: 170)

In other words, the progressive sentence suggests the following: there is a time t, that is before now (since the sentence is in the past progressive) and there is a crossing event that involves Agatha as the subject and the street as the object and that event has not culminated at time t. Parsons' approach says nothing about whether or not the crossing event ever culminates and, thus, has no intensionality built into the meaning of the progressive.

Landman (1992) also uses an event-based analysis of the progressive, but builds intensionality into the meaning of the progressive (the way in which Dowty does, though Dowty's approach is not event-based). His analysis involves the following two definitions:

(38) a. An event e is a stage of event e' if it develops into e'. Let e be an event that goes on in w at i. Let e' be an event that goes on in w' at j, where i is a subinterval of j. e' is a continuation of e iff e is a stage of e'.

b. The continuation branch for C(e,w)[14] is a set of pairs of events and worlds which allows you to trace the development of an event stage if it stops in a world.

Landman's progressive operator is defined as follows:

(39) $[[PROG(e,P)]]_{w,g} = 1$, iff $\exists e' \exists w' : \langle e', w' \rangle \in CON(g(e),w)$ and $[[P]]_{w',g}(e') = 1$
where CON(g(e),w) is the continuation branch of g(e) in w.

[13] See also Vlach (1981) for a proposal that progressives are stative.

So for the sentence *Mary is building a house* to be true in the actual world, it must be the case that there is an event e which has an event on its continuation branch for e in w in which Mary actually completes the building of a house.

Ogihara (1998) adopts Landman's proposal to account for the readings that result from the combination of Japanese predicates and the aspectual auxiliary *iru* (which is analyzed separately from the tense morpheme *–te*). The definition is given below:

(40) For any eventuality term e and an expression P_e that denotes a set of eventualities, $[[\text{IRU}(e,P_e)]]_{w,g} = 1$ iff $\exists e' \exists w' [<e', w'> \in \text{CON}(g(e),w) \wedge [[P_e]]_{w,g}(e') = 1]$.

Ogihara extends Landman's proposal in order to account for both the on-going process interpretations and the result state interpretations of *–te iru* in Japanese. Ogihara suggests that while Landman

> "implicity assumes that I search into the future to find a relevant continuation stretch of g(e) because this accounts for the semantics of the English progressive. To account for the ambiguity of *–te iru*, **we extend Landman's original idea is such a way that one can also search into the past to find a desired eventuality**"
>
> (p. 109; boldface has been added)

Sḵwx̱wú7mesh achievements occur with the progressive, even though they are "instantaneous". It has been claimed that an achievement is simply a type of accomplishment, with a very short activity period, and this is lexically determined (Verkuyl 1993), or that achievements shift into accomplishment readings in the progressive (Mittwoch 1991). Rothstein (2004) convincingly shows that progressive achievements and accomplishments, in fact, have different behaviours in the progressive (see examples in Chapter One); she argues that the progressive triggers a type-shifting operation where an accomplishment is derived from an achievement (see Section 4.3). Her shift rule is repeated below:

[14] C(e,w) is defined by Landman as "the continuation branch of e in w".

(41) SHIFT($VP_{punctual}$): $\lambda e.(BECOME)(e) \rightarrow$
$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (DO(\alpha))(e_1) \wedge (BECOME(P))(e_2) \wedge Cul(e)=e_2]$

In the following section, I look at the imperfective in greater detail.

3.2. The imperfective

This section parallels the previous section but focuses on the imperfective. I first examine the imperfective from a cross-linguistic perspective and show that the Sḵwx̱wú7mesh morpheme *wa* is a good candidate for the Sḵwx̱wú7mesh imperfective morpheme. I then discuss a few analyses of the imperfective and adopt a Kratzer type analysis to be used in later sections.

3.2.1. A cross-linguistic look

In a variety of languages, the imperfective denotes both progressive and habitual readings (Comrie 1976). Bhat (1999) suggests that "Languages that differentiate between perfective and imperfectve aspects generally express habitual and iterative meanings with the help of their imperfective forms. In Kiowa, for example, the imperfective verb covers a variety of non-completed events that include general statements, habitual or repeated activities, and events in progress".

Smith (1997) suggests that the two most common imperfectives are the *general imperfective*, which applies to all aspectual classes, and the *progressive*, which applies to non-statives. She uses the French Imparfait, (impf) in the sentences below, as an example of the general imperfective and illustrates examples of a stative (a), activity (b), accomplishment (c) and achievement (d) in this viewpoint (the imparfait in French is only compatible with past time reference):[15]

(42) a. La mer était calme
DET.F sea was calm
'The sea was(IMPF) calm.' STATIVE

b. L' enfant pleurait
DET.M child cried
'The child was crying(IMPF).' ACTIVITY

[15] Interlinear glosses have been added. I would urge the reader to consult other sources for more specific glosses.

c. Ils bâtissaient une cabine
3PL.M built DET.F cabin
'They were building(IMPF) a cabin.' ACCOMPLISHMENT

d. Il entrait dans un magasin.
3.SG entered in DET.M store
'He was entering a store.' ACHIEVEMENT
(Smith 1997: 73, ex. 24)

In Russian, the imperfective is also available for all aspectual classes, as shown below with a stative (a), activity (b), accomplishment (c) and achievement (d):[16]

(43) a. Vanja goloda-l
Vanja starve.IMPERF-PAST
'Vanja was starving(IMPF).' STATIVE

b. Vanja pe-l v parke
Vanja sing.IMPERF-PAST in park
'Vanja was singing(IMPF) in the park.' ACTIVITY

c. My pisa-l-i pis'mo
1PL write.IMPERF-PAST-PL letter
'We were writing(IMPF) a letter.' ACCOMPLISHMENT

e. On umir-a-l
3SG.M die-IMPERF-PAST
'He was dying(IMPF).' ACHIEVEMENT
(Smith 1997: 231-2, ex 11a-c,e)

Smith claims that the Russian imperfective is required in habitual sentences. She provides the following examples:[17]

[16] Interlinear glosses have been added. Please consult other sources for more detailed glosses.
[17] Smith does not provide any data here that show whether habitual sentences are ungrammatical with perfective verbs.

(44) a. Ja rad, -skaza-l on prosto,
1SG happy say.PERF-PAST 3SG simply

kak govori-l vse I vsegda
as talk-IMPERF everything and always

'"I am happy", he said(PERF) simply, as he said(IMPERF) everything and always.'

b. Obyčno on prixodi-l
Normally he walk.IMPERF-PAST

na rabotu za pjat' minut do načala
at work at five minute before begin

'Normally he arrived(IMPF) at work five minutes early.'

c. On čitaet sovetskie romany po-russki
He read.IMPERF-PRES Soviet novels in.Russian
'He reads(IMPF) Soviet novels in Russian.'

(Smith 1997: 243, ex 17)

Russian is quite relevant to this discussion of Sḵwx̱wú7mesh since, according to Smith, stative predicates appear only in the imperfective; some examples are given below:[18]

(45) a. Vanja ljub-it Mašu
Vanja love.IMPERF-PRES Mašu
'Vanya loves(IMPF) Masha.'

b. Petya zna-et otvet
Petya know.IMPERF-PRES answer
'Petya knows(IMPF) the answer.'

c. Ona by-l-a umnaja
3sg.f be-PAST-FEM.SG intelligent
'She was(IMPF) intelligent.'

(Smith 1997: 248, ex. 52)

Smith suggests that "apparent" pairs of imperfective/perfective forms of stative verbs are not identical in situation type (predicate class). She states that imperfective forms are stative and

[18] Unfortunately, all the examples that Smith gives are individual-level states; thus, it is not possible to determine whether there is a distinction along the S-L/I-L lines here.

perfective forms are inchoative achievements.[19] This parallels the Sḵwx̱wú7mesh data in that perfective forms of inchoative states have both inchoative and stative readings, while imperfective forms have stative readings. Further research is required to pursue the connection between the two languages.

Sḵwx̱wú7mesh *wa* seems to parallel the French general imperfective (*imparfait*), though the morpheme in Sḵwx̱wú7mesh is not restricted to past tense (this imperfective seems to be common across all the Romance languages). As well, Sḵwx̱wú7mesh may parallel Navajo in having (potentially) both an imperfective and progressive viewpoint; however, in Navajo, only the in progress reading is available for both morphemes, while in Sḵwx̱wú7mesh, all readings except for the habitual overlap.

3.2.2. Analyses of the imperfective

Kratzer's (1998) proposal for the perfective was given in Chapter Four, and is repeated below:

(46) *Perfective*

a. event time included in reference time [REFERENCE TIME [EVENT TIME]

b. $\lambda P \lambda t \exists e\ [Q(e) \wedge \tau(e) \subseteq t]$

c. A property of events *P* is mapped into a property of times which is true of a time *t* just in case *t* includes the running time (τ) of a P-event.

The imperfective is, in some sense, the reverse of the perfective, since reference time is now located inside event time. This is illustrated below:

(47) *Imperfective*

a. reference time included in event time [EVENT TIME [REFERENCE TIME]]

b. $\lambda P \lambda t \exists e\ [P(e) \wedge t \subseteq \tau(e)]$

c. A property of events *P* is mapped into a property of times which is true of a time *t* just in case *t* is included in the running time (τ) of a P-event.

[19] The two pairs that Smith uses as examples are listed as 'see' (impf/perf) and 'understand' (imf/perf); it is not clear whether she considers these stative or inchoative achievements, and whether one is derived from the other.

These definitions capture the difference between the following two examples from French; the Passé Composé (PC) is claimed by Smith to be a perfective, while the Imparfait (Impf) is claimed to be the imperfective:

(48) a. *Perfective*

# L'	été	passé	ils	ont	construit	une	cabine;
DET	summer	past	3PL.M	have	built	DET	cabin
	peut-être	qu'	ils	la	contruisent	encore	
	maybe	that	3PL.M	3SG.F	build	still	

'Last summer they built(PC) a cabin; perhaps they are still building(PRESENT) it.'

(Smith 1997: 194; ex. (2a))

b. *Imperfective*

# L'	été	passé	ils	construisaient	une	cabine;	
DET	summer	past	3PL.M	built	DET	cabin	
	peut-être	qu'	ils	la	contruisent	encore	
	maybe	that	3PL.M	3SG.F	build	still	

'Last summer they were building(IMPF) a cabin; perhaps they are still building(PRESENT) it.'

(Smith 1997: 198; ex. (11a))

This analysis can also capture the habitual readings of the imperfective that are observed cross-linguistically. Consider the following Italian sentences where the same imperfective form *fumava* 'smoke' can be used in both habitual and in progress contexts:

(49) a. Quando battè (PAST PERF.) il primate di apnea, **Leo fumava** (PAST IMPERF.).
'When Leo broke the apnea record, **he used to smoke**.'

b. Quando entrai (PAST PERF.) in aula, **Leo fumava** (PAST IMPERF.).
'When I entered the room, **Leo was smoking**.'

(Bonomi 1997: 490, ex. 34-35)

(b) could be analyzed in the same way as the French imparfait. As for the habitual reading of the Italian imperfective in (a), Kratzer's analysis can capture this as well. The reference time, which in this case, is the time at which *Leo broke the apnea record*, is contained within the

event time, that is, the period of time in which *Leo used to smoke*. In other words, the time span when Leo was a smoker is a larger time span than the time at which Leo broke the apnea record.

There have been other attempts to characterize this behaviour of the imperfective. Bonomi (1997), for example, attempts to capture the two meanings that arise with imperfective sentences in Italian, as well as the fact that only certain readings are available in certain contexts. He suggests a unifying principle for the imperfective, as follows:

(50) *Imperfective Unifying Principle*

a. The progressive reading of the imperfective and the habitual reading originate from the same logical form, based on universal quantification over circumstances.

b. The context can have a crucial role in determining which, of these two readings, is admissible.

The intuition behind his principle is that both the habitual reading and the progressive reading of the imperfective are characterized by the occurrence of a series of events of Leo's smoking; with the habitual reading, this is an extended period of time, while with progressive events, this is a local interval that is characterized by a series of smoking events. *Local* versus *extended*, in his analysis, seems to be dependent on the context.

The Sḵwx̱wú7mesh imperfective marker *wa* behaves like the Italian imperfective (and that found in other Romance languages) in that it has both in progress readings and habitual readings. My concern here is not the contexts in which the two types of readings are possible or when one reading is more appropriate than the other, but whether they are available for all predicate classes I have identified in Sḵwx̱wú7mesh, and whether my representations can predict these facts. As such, I will adopt Kratzer's analysis of the imperfective for Sḵwx̱wú7mesh *wa* since it is sufficient in capturing the readings.

4. The Sḵwx̱wú7mesh CV- reduplicant is a progressive marker

I claim that the CV reduplicant is the Sḵwx̱wú7mesh progressive marker. The data is consistent with generalizations about the progressive cross-linguistically, as illustrated above, and shown with further examples below. In this section, I show that the proposed predicate

representations, along with the analysis of the CV reduplicant as a progressive marker, predict the observed readings of Skwxwú7mesh CV reduplicated predicates.

The observed readings that the analysis must account for are summarized in the chart below, along with the proposed predicate representations:

(51) *Skwxwú7mesh CV- reduplicated predicates*

	Occurs with CV-	Readings
Activities $\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	✓	in progress
Accomplishments $\lambda e.(\text{DO}(P))(e) \wedge [\forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates } (e') \text{ in } w' \wedge e \text{ causes } e' \text{ in } w']]]]]$	✓	in progress
Achievements $\lambda e.(\text{BECOME}(P))(e)$	✓/✗	in progress/*
Inchoative States $\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (P))(e_2)]$	✓	stative

Dowty's analysis of the progressive (revised to more closely parallel the predicate representations) is shown again below:

(52) $[[\text{PROG}]]w = \lambda Q \lambda t \exists e [\exists t' [\, t \subset t' \text{ and t is not a final subinterval for t'}] \wedge \forall w' [w' \in \text{Inr}\langle t,w\rangle] \rightarrow Q(e)(w')=1 \wedge \tau(e)(w') = t']$

I begin with progressive activities.

4.1. Progressive activities

The analysis must account for the fact that reduplicated activities are interpreted as in-progress events:

(53) a. chen **i-7ilhen**
1S.SG **REDUP-eat**
'I'm (continuously) eating.'

b. na **xey-xey-am** ta sta7uxwlh
RL **REDUP-laugh-INTR** DET children
'They're laughing (at something funny).'

As I showed in Chapter Three, data with punctual clauses illustrate that the events are on-going at the time indicated by the punctual adverb, yielding overlapping events:

(54) chen-t **i-7tut** na7 t-kwi an'us-k
1S.SG-PAST **REDUP-sleep** LOC OBL-DET two-o'clock
'I was sleeping at two o'clock.'

The representation I have proposed for Skwxwú7mesh activities is given in (a), the proposed representation for the addition of the CV reduplicant is given in (b), and the representation including the activity template (bolded below) is given in (c):

(55) *Activities*

a. $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$

b. $[[\text{PROG}]]w = \lambda Q \lambda t \exists e[\exists t'$ [$t \subset t'$ and t is not a final subinterval for t'] $\wedge \forall w'$ [$w' \in \text{Inr}<t,w>] \rightarrow Q(e)(w')=1 \wedge \tau(e)(w') = t']$

c. $[[\text{PROG}]]w = \lambda t \exists e[\exists t'[t \subset t'$ and t is not a final subinterval for t'] $\wedge \forall w'[w' \in \text{Inr}(<t,w>)] \rightarrow \mathbf{[\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge (DO(P))(e_2)]]}(w')=1 \wedge \tau(e)(w') = t']$

The following is an illustration using a Skwxwú7mesh example; the data is given in (a) and the meaning in (b):

(56) a. chen-t **i-7tut** na7 t-kwi an'us-k
1S.SG-PAST **REDUP-sleep** LOC OBL-DET two-o'clock
'I was sleeping at two o'clock.'

b. $[[\text{chen-t } \mathbf{\text{i-7tut}} \text{ na7 t-kwi an'us-k}]]w = \lambda t \exists e[\exists t'[t \subset t'$ and t is not a final subinterval for t'] $\wedge \forall w'[w' \in \text{Inr}(<t,w>)] \rightarrow [\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge \text{START-SLEEP}(e_1) \wedge \text{SLEEP}(e_2)]](w')=1 \wedge \tau(e)(w') = t']$

Intuitively, this is what I expect given that activities have an initial BECOME sub-event as well as a DO sub-event in their representation; the progressive forces the reference time (at two o'clock in (56a))to be properly inside the event time (the running time of the sleep event

in (56a)), which is only possible for events that take time, namely a DO event. As a result, the in-progress reading observed with activities is expected. I now turn to accomplishments.

4.2. Progressive accomplishments

For accomplishments, the analysis must account for the fact that when prefixed with a *CV*-reduplicant, they denote events in-progress; the speaker's translation "in the process of" emphasizes this reading:[20]

(57) na **p'a-p'ayak̲**-ant-as ta snexwilh-s
RL **REDUP-fix**-TR-3ERG DET canoe-3POSS
'He's in the process of fixing his canoe.'

Like activities, accomplishments also contain DO sub-events and as with activities, the progressive forces the reference time to be properly inside the event time. Recall that Sk̲wx̲wú7mesh accomplishments also contain a culmination implicature. The proposed representation is given in (a), the definition of the progressive in (b) and the representation that includes both in (c) (the accomplishment is bolded):

(58) *Accomplishments*

a. λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]]

b. [[PROG]]w = λQλt∃e[∃t' [t ⊂ t' and t is not a final subinterval for t'] ∧ ∀w' [w' ∈ Inr<t,w>] → Q(e)(w')=1 ∧ τ(e)(w') = t']

c. [[PROG]]w = λt∃e[∃t'[t ⊂ t' and t is not a final subinterval for t'] ∧ ∀w'[w' ∈ Inr(<t,w>)] → **[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]]** (e)(w')=1 ∧ τ(e)(w') = t']

The result is that we get modality in both the meaning of the CV reduplicant and the meaning of the Sk̲wx̲wú7mesh accomplishment predicate. However, the accomplishment template

[20] The data regarding CV reduplicated predicates is limited to some extent given that more often than not, speakers prefer *wa* in addition to CV reduplication. However, the available data is systematic – the fact that *wa* is preferred in addition suggests that there is something extra going on, but not that the generalizations are wrong.

allows inertia worlds to branch off at the beginning of the event time, while with the progressive, inertia worlds branch off at the end of the reference time. The result is that there is no entailment of culmination in the actual world, though there is an implicature that in inertia world the culmination is reached. I illustrate with the following example:

(59) a. na **p'a-p'ayak**-ant-as ta snexwilh-s
RL **REDUP-fix**-TR-3ERG DET canoe-3POSS
'He's in the process of fixing his canoe.'

b. [[na **p'a-p'ayak**-ant-as ta snexwilh-s]]w = λt∃e[∃t'[t ⊂ t' and t is not a final subinterval for t'] ∧ ∀w'[w' ∈ Inr(<t,w>)] → [FIX(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [the canoe gets fixed (e') in w' ∧ e causes e' in w']]]]](e)(w')=1 ∧ τ(e)(w') = t']

I next turn to the class of progressive achievements.

4.3. Progressive achievements

Although of the CV reduplicated achievements I have tested, some are not accepted by speakers (a-b), this analysis must account for the fact that when it is accepted, a CV reduplicated achievement is interpreted as an in-progress event (b-c):

(60) a. * chen xe-xewtl'-an ta xel'ten
1S.SG REDUP-break-TR DET pencil
attempted: 'I am breaking the pencil.'

b. %na **tl'i-tl'ik** ta John
RL **REDUP-arrive** DET John
'John's arriving right now.'[21]

c. na **xe-xelk'-em** ta skakl na7 ta yay'wes
RL **REDUP-fall-INTR** DET baby LOC DET bed
'He's falling off the bed.'
Speaker's comments: "He could be rolling off the bed"

[21] This is accepted by some speakers but rejected by others. I suggest that this difference is attributed to whether or not the context or the speaker can stretch the event out long enough to refer to it as an event that has not culminated.

The speaker's comment in (c) suggests that it may be possible for the CV reduplicant to yield what Smith's calls a "preliminary stage" reading; recall that in Navajo, the progressive cannot get the "rolling" reading, but can get the "falling" reading. Further research will determine how systematic these readings are. At this point, I must base the analysis on a limited set of data.

Consider the representation for achievements given in (a) below and the representation of a CV reduplicated achievement in (b) below:

(61) *Achievements*

a. $\lambda e.(\text{BECOME}(P))(e)$

b. $[[\text{PROG}]]w = \lambda t \exists e[\exists t'[t \subset t' \text{ and } t \text{ is not a final subinterval for } t'] \wedge \forall w'[w' \in \text{Inr}(<t,w>)] \rightarrow [\text{BECOME}(P)(e)]](e)(w')=1 \wedge \tau(e)(w') = t']$

Given this representation, the ungrammatical reading of reduplicated achievements that are sometimes observed with some speakers is expected. An example is shown again below:

(62) a.

*na	**tl'i-tl'ik**	ta	John
RL	**REDUP-arrive**	DET	John

b. $[[\text{na tl'i-tl'ik ta John}]]w = \lambda t \exists e[\exists t'[t \subset t' \text{ and } t \text{ is not a final subinterval for } t'] \wedge \forall w'[w' \in \text{Inr}(<t,w>)] \rightarrow [\text{ARRIVE}(e)]](e)(w') = 1 \wedge \tau(e)(w') = t']$

An achievement is usually considered an instantaneous event; thus the reference time cannot be properly contained inside the event time and not be a final subinterval of the reference time. This then yields an ungrammatical/infelicitous reading of a CV reduplicated achievement.

However, it is also possible for CV reduplicated achievements to be judged felicitous and translated as events in progress:[22]

[22] The following example is unexpected; the bare predicate in (i) seems to be a plain achievement, but the reduplicated form in (ii) behaves more like an inchoative state, not an achievement (since it induces a stative reading, not an in progress reading, as the speaker's comments suggest):

(i)

na	**lhxilsh**	ta	John
RL	**stand.up**	DET	John

'John stood up.'

(63) a. na **tl'i-tl'ik** ta John
RL **REDUP-arrive** DET John
'John's arriving right now.'

But given what I have said above about the event time and reference time of reduplicated achievements, I don't expect data like these to be possible. So now I am left to account not only for the fact that these sentences can be grammatical, but for the fact that these sentences contain events that are judged as in progress.

Recall Rothstein's analysis of progressive achievements in English. She shows that progressive achievements are not the same as progressive accomplishments, and argues that achievements are not simply short accomplishments. Instead, Rothstein proposes a shift operation that is triggered by the English progressive. The analysis is repeated below, with the shift operation in (a), and an example and representation in (b) and (c):[23]

(64) a. $\text{SHIFT}(\text{VP}_{\text{punctual}})$: $\lambda e.(\text{BECOME})(e) \rightarrow$
$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{DO}(\alpha))(e_1) \wedge (\text{BECOME}(P))(e_2) \wedge \text{Cul}(e)=e_2]$

b. Mary is arriving at the station.

c. SHIFT ($\lambda e.$ ARRIVE AT THE STATION(e))
$= \lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{DO}(\alpha))(e_1) \wedge$ ARRIVE AT THE STATION(e_2)
$(\text{Cul}(e)=e_2]$

The representation in (c) above suggests that the shift operation that applies to a punctual event such as *arrive at the station* results in an event that consists of two sub-events, an initial DO sub-event and the punctual event *arrive at the station*, which is the culmination of the entire event (and the original achievement to which this operation applied). This yields an "abstract" or "derived" accomplishment (in Rothstein's terms) since it has the structure of an accomplishment but does not correspond to a particular lexical item. The content of the initial activity sub-event of the shifted predicate is not lexically specified, but is contextually

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(ii) na **lhi-lhxilsh** ta John
RL **REDUP-stand.up** DET John
'John is standing up.'
Speaker's comments: "He's already standing [not in the process of standing]"

[23] This is a slightly simplified version of Rothstein's analysis.

determined by the meaning of the verb (whatever can be classified as some "stage" of the achievement).

I adopt the same analysis for Sḵwx̱wú7mesh achievements. The Sḵwx̱wú7mesh example is given in (a), the shifted predicate in (b) and the entire representation, including the conditions of the progressive is given in (c):

(65) a. na **tl'i-tl'iḵ** ta John
RL **REDUP-arrive** DET John
'John's arriving right now.'

b. SHIFT (λe. ARRIVE(e))
$= \lambda e.\exists e_1 \exists e_2 [e =^{s} (e_1 \sqcup e_2) \wedge (DO(\alpha))(e_1) \wedge ARRIVE\ (e_2)]$

c. [[na tl'i-tl'iḵ ta John]]w = $\lambda t \exists e [\exists t' [t \subset t'$ and t is not a final subinterval for t'] $\wedge \forall w' [w' \in Inr(<t,w>)] \rightarrow [\exists e_1 \exists e_2 [e =^{s} (e_1 \sqcup e_2) \wedge (DO(\alpha))(e_1) \wedge ARRIVE\ (e_2)]](e)(w') = 1 \wedge \tau(e)(w') = t']$

The representation is (c) states that there is an event that consists of two sub-events, an initial lexically unspecified DO sub-event, and a final punctual ARRIVE sub-event, and the reference time of the event, *right now*, is properly contained in the running time of *John's arriving*. Since the shifted event that I am now referring to is not simply a punctual event, I do not expect the sentence to be ungrammatical since the event time is, in fact, larger than the reference time. Moreover, since the initial sub-event of the shifted predicate is a DO sub-event, then I do predict an in progress reading of the CV reduplicated achievement.

Rothstein suggests that not all achievements in English occur in the progressive:

(66) a. # Dafna is spotting her mother at the party.

b. # John is noticing that Mary has cut her hair.

(Rothstein 2004:52; ex. 39)

She argues that her analysis of progressive achievements can account for this. Her shifted rule introduces an agentive component with the addition of a DO sub-event that makes up the preparatory stages of the event. Rothstein suggests that the predicates in (66) above are non-agentive (that happen to the participant unexpectedly) and thus have no preparatory events that can be considered stages of the achievement. As a result, she suggests that these

sentences are ruled out for pragmatic reasons. At this point, I do not have enough data to argue whether the same is true for Sḵwx̱wú7mesh achievements, but will have to leave this for future research.

The final class to examine is progressive inchoative states.

4.4. Progressive inchoative states

Finally, the analysis must account for the fact that reduplicated inchoative states are interpreted as statives:

(67) a. chen t'a-t'ayaḵ'
1S.SG REDUP-angry
'I am angry.'

b. chen kw'a-kw'ay'
1S.SG REDUP-hungry
'I'm hungry.'

c. chen ts'a-ts'ayakw
1S.SG REDUP-worry
'I'm worried.'

When modified by a punctual clause/adverbial, a reduplicated inchoative state yields a stative reading of the predicate:

(68) chen **t'a-t'ayaḵ'** kwi s-es tl'iḵ ta John
1S.SG **REDUP-angry** DET NOM-3POSS arrive DET John
'I was angry when John arrived.'

The inchoative state and its representation in the progressive is shown below:

(69) *Inchoative states*

a. $\lambda e.\exists e_1 \exists e_2[e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (P)(e_2)]$

b. $[[\text{PROG}]]w = \lambda Q \lambda t \exists e[\exists t'$ [t $\subset$ t' and t is not a final subinterval for t'] $\wedge \forall w'$ [w' $\in$ Inr<t,w>] $\rightarrow$ Q(e)(w')=1 $\wedge \tau(e)(w') = t']$

c. $[[\text{PROG}]]w = \lambda t \exists e[\exists t'[t \subset t'$ and t is not a final subinterval for t'] $\wedge \forall w'[w'$ $\in$ Inr(<t,w>)] $\rightarrow [\exists e_1 \exists e_2[(e =^s (e_1 \sqcup e_2) \wedge ((\text{BECOME}(P))(e_1) \wedge (P))(e_2))]](w')=1$ $\wedge \tau(e)(w') = t']$

The example below illustrates again the meaning of a reduplicated inchoative state and how this is derived from its basic representation:

(70) a. chen **t'a-t'ayak'** kwi s-es tl'ik ta John
1S.SG **REDUP-angry** DET NOM-3POSS arrive DET John
'I was angry when John arrived.'

b. [[chen **t'a-t'ayak'**]]w = $\lambda t \exists e[\exists t'[t \in t'$ and t is not a final subinterval for t'] $\wedge$ $\forall w'[w' \in Inr(<t,w>)] \rightarrow [\exists e_1 \exists e_2[(e=^s(e_1 \sqcup e_2) \wedge$ BECOME-HUNGRY$(e_1) \wedge$ HUNGRY$(e_2))]](w')=1 \wedge \tau(e)(w') = t']$

Comparing inchoative states with activities and accomplishments, inchoative states have no DO sub-events, which accounts for why reduplicated predicates of this type denote stative events and not in-progress events. As the derivation above shows, the state, along with the change of state that marks the beginning of the state, is contained in the meaning of this type of predicate. The progressive ensures that the event time is larger than the reference time of the sentence, and while there is no DO sub-event that takes time here (and which can be larger than the reference time, which is a punctual clause), there is a stative sub-event, which itself can be larger than the punctual clause. Thus given that the reference time is contained inside the state of this predicate, a stative reading, rather than an in progress reading, is expected.

4.5. Summary and concluding remarks

To conclude this section, I have argued that the CV reduplicant in Skwxwú7mesh is a progressive marker. I adopt Dowty's analysis of the progressive and show that data with CV reduplicated predicates confirm my proposed predicate representations motivated in Chapters Two and Three. The templates I have proposed, in addition to the meaning of the progressive that I adopt here, predict the observed readings of CV reduplicated predicates. This is summarized in the table below:

(71) *Sḵwx̱wú7mesh CV- reduplicated predicates*

	CV
Activities $\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge (DO(P))(e_2)]$	in progress
Accomplishments $\lambda e.(DO(P))(e) \wedge [\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists e'$ [culminates (e') in w' $\wedge$ e causes e' in w']]]]]	in progress
Achievements $\lambda e.(BECOME(P))(e)$	*/in progress
Shifted achievement $\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (DO(\alpha))(e_1) \wedge (BECOME(P))(e_2)]$	in progress
Inchoative States $\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (BECOME(P))(e_1) \wedge (P))(e_2)]$	stative

Accomplishments, activities and shifted achievements contain DO sub-events; CV reduplicated predicates of these types are all felicitous, which is expected when the reference time is placed inside the event time, given that these events do take time. The in-progress reading is expected given the fact that the sub-event are DO events (activities). Inchoative states on the other hand, have stative sub-events, not DO sub-events. While these states take enough time for the reference time to be placed inside the event time and yield a grammatical sentence, reduplicated inchoative states yield stative readings and not in-progress readings. Finally, achievement predicates are represented by BECOME events whose running times are too short to have the reference time forced inside them. As expected, these predicates are ungrammatical (unless shifted to a complex structure containing DO – see above).

Dowty's definition for the progressive specifies that the reference time cannot be a final subinterval of the event time. Since I am focusing in this thesis not only on final subintervals, but on initial subinterval, it is necessary to consider whether or not the reference time must be restricted with respect to initial subintervals as well. The relevant definition is given below:

(72) $[[PROG]]w = \lambda Q \lambda t \exists e[\exists t'[t \subset t'$ and t is not an initial or final subinterval for t'] $\wedge$ $\forall w'[w' \in Inr(<t,w>)] \rightarrow Q(e)(w')=1 \wedge \tau(e)(w') = t']$

For predicates with complex sub-eventual structure that have initial BECOME events, this would ensure that the interpretation of the progressive predicate does not include that initial point. The question is whether this is indeed the case. In English examples like the following

my own intuition is that the sentence is infelicitous in the context where she started writing at 2pm, and must have started before:

(73) Mary was writing a letter at 2pm

However, it is necessary to check this data with other speakers to verify whether indeed this is the case. I do not have any parallel data available in Sḵwx̱wú7mesh, and thus will have to leave this for future research.

In Bar-el (2003) I took a different approach to deriving the in progress and stative readings that the CV reduplicant induces. Following an analysis of the Salish stative marker (Burton and Daivs 1996) that adopts a Pustejovsky style event structure approach, I proposed the following:

(74) *CV-* removes the first state component $<e_{st}>$ of a predicate consisting of 2 eventualities <e , e>.

This analysis relied on the assumption that there are only two event structures in Sḵwx̱wú7mesh, as follows (for expository purposes, I use the terminology adopted in this thesis):

(75) a. Activities, Inchoative States $<e_{st}, e_{st}>$

b. Accomplishments, Achievements $<e_{pr}, e_{st}>$

Applying the proposal for the CV reduplicant given above to these two predicate classes, the claim is that for $<e_{st}, e_{st}>$ predicates (activities and inchoative states), the CV reduplicant removes the initial state, leaving the final state $<e_{st}>$. For $<e_{pr}, e_{st}>$ predicates (accomplishments and achievements), the CV reduplicant removes the final state, leaving the initial process $<e_{pr}>$:

(76) a. Activities, Inchoative States $<e_{st}, e_{st}> \rightarrow <e_{st}>$

b. Accomplishments, Achievements $<e_{pr}, e_{st}> \rightarrow <e_{pr}>$

The advantage of this approach is that it correctly derives the fact that the CV reduplicant prefixed to a predicate consisting of $<e_{pr}, e_{st}>$ does not yield a *stative* reading, but an *in progress* reading, as shown again by the data below:

(77) na **tl'i-tl'ik** ta John
RL **REDUP-arrive** DET John
'John's arriving right now.'
*'John arrived/John was here.'

There are three main drawbacks to this analysis. First, it relies on above templates for the Skwxwú7mesh predicate classes, which does not allow us to account for the observed facts in the language. Second, it adopts an analysis of aspect that relies on the deletion of argument structure, rather than on the "focusing" on different parts of the event; I do not have further evidence that the structure is not actually there in reduplicated forms. Finally, the analysis cannot explain why it is that the progressive looks for a state component only; that is, I are left to account for why the progressive would pass over the initial process of a predicate of the type $<e_{pr}, e_{st}>$, and target the final state instead.

5. Skwxwú7mesh *wa* is an imperfective marker

I propose that the auxiliary *wa* is the Skwxwú7mesh imperfective marker. Adopting Kratzer's analysis of the imperfective, I show that the proposed representations for Skwxwú7mesh predicates, correctly predict the observed readings of Skwxwú7mesh predicates marked by *wa*.

The table below summarizes the facts about the readings induced by *wa* with each of the Skwxwú7mesh predicates, along with the proposed representations. The analysis of *wa* must account for these facts:

(78) *Skwxwú7mesh predicates+ wa*

	Occurs with *wa*	Reading
Activities $\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	✓	in progress habitual
Accomplishments $\lambda e.(\text{DO}(P))(e) \wedge [\forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates } (e') \text{ in } w' \wedge e \text{ causes } e' \text{ in } w']]]]]$	✓	in progress habitual
Achievements $\lambda e.(\text{BECOME}(P))(e)$	✓	%in progress habitual
Inchoative States $\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (P))(e_2)]$	✓	stative habitual(?)[24]

Kratzer's analysis of the imperfective is repeated below:

(79) $\lambda P \lambda t \exists e\ [P(e) \wedge t \subseteq \tau(e)]$

I begin with imperfective activities.

5.1. Imperfective activities

This analysis must account for the fact that *wa* induces in-progress readings and habitual readings with activities. In-progress readings in both past and present tense are shown again below:

(80) a. chen wa lulum
1S.SG IMPERF sing
'I am singing.'

b. chen-t wa lulum
1S.SG-PAST IMPERF sing
'I was singing.'

[24] H. Davis (p.c. to L. Matthewson) states that the habitual reading is easy to get in Stát'imcets; for example, *wa7lhkan qlil lhnukwas* 'I get angry sometimes' (*wa7* here is cognate with Skwxwú7mesh *wa*, and is almost identical in behaviour). I believe that with further elicitation in Skwxwú7mesh, the same facts will be uncovered. At present, I have one piece of data (discussed later in this section) that points to the availability of the habitual reading with inchoative states.

(81) a. chen wa xaa-m
1S.SG IMPERF cry-INTR
'I am crying.'

b. chen-t wa xaa-m
1S.SG-PAST IMPERF cry-INTR
'I was crying.'

(82) a. chen wa itut
1S.SG IMPERF sleep
'I am sleeping.'

b. chen-t wa itut
1S.SG-PAST IMPERF sleep
'I was sleeping.'

Recall again that basic activities are often translated in the English present progressive (when *wa* is not present); to emphasize the contrast between basic and *wa* marked Skwxwú7mesh activities, consider the pairs of sentences below. The basic activities get inceptive readings (a); that is, the sentence has a simultaneous/immediately consecutive reading of the matrix event and the embedded event, so that the matrix event is interpreted as an inceptive activity. The *wa* marked activitites (b) are on-going, thus yielding an overlapping reading of the matrix event and the embedded punctual event (the speaker's comments are indicative of the meaning of the imperfective form):

(83) a. chen xaa-m kwi s-es tl'ik kwa John
1S.SG cry-INTR DET NOM-3POSS arrive DET John
'I cried when John got here.'

b. chen wa xaa-m kwi s-es tl'ik kwa John
1S.SG IMPERF cry-INTR DET NOM-3POSS arrive DET John
'I was crying when John got here.'
Speaker's comments: "You say this if you had been crying for a while before"

(84) a. chen itut kwi s-es huy-nexw ta sxwexwiy'am'
1S.SG sleep DET NOM-3POSS finish-TR(LC) DET story
'I went to sleep when he finished the story.'

b. chen wa i-7tut
1S.SG IMPERF REDUP-sleep
kwi s-es huy-nexw ta sxwexwiy'am'
DET NOM-3POSS finish-TR(LC) DET story
'I was sleeping when he finished the story.'

(85) a. na xwitim ta John
RL jump DET John
kwi s-es tin-tin ta tin-tin
DET NOM-3POSS REDUP-bell DET REDUP-ring
'John jumped when the bell rang.'
✓Context: one jump
Speaker's comments: "One time...because he got startled"
✓Context: record breaking contest - inceptive reading where he starts jumping when the bell rings

b. na wa xwi-xwitim ta John
RL IMPERF REDUP-jump DET John
kwi s-es tin-tin ta tin-tin
DET NOM-3POSS REDUP-ring DET REDUP-bell
'John was jumping when the bell rang.'[25]
✓Context: John was already jumping when the bell rang

While habitual readings are not necessarily volunteered for translations of *wa* marked activities, when asked to translate an English habitual sentence (a), or an English noun marked by *–er* (b-c), a sentence with *wa* is always offered. This is illustrated below:

(86) a. wa7-t tskw'atsut kwa John
IMPERF-PAST run DET John
'John used to run.'

b. na wa cha7t-wilh kwa John
RL IMPERF carve-canoe DET John
'John carves canoes/is a carver.'

[25] No translation was given; I propose this as an appropriate gloss.

c. na wa lhelh-sp'utl'em kwa John
RL IMPERF ingest-smoke DET John
'John smokes/is a smoker.'

If a habitual context is offered overtly in the sentence, a *wa* marked activity is volunteered, as shown below:

(87) chen wa lulum, nilh n-sts'its'ap
1S.SG IMPERF sing, FOC 1POSS-work
'I sing, that's my job.'

The representation I have proposed for Sḵwx̱wú7mesh activities is given in (a), the proposed representation for the addition of the imperfective morpheme *wa* is given in (b), and the representation including the activity template (bolded) is given in (c):

(88) *Activities*

a. $\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$
b. $\lambda Q \lambda t \exists e\ [Q(e) \wedge t \subseteq \tau(e)]$
c. $\lambda t \exists e[\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1) \wedge (DO(P))(e_2)}] \wedge t \subseteq \tau(e)]$

The following is an illustration using a Sḵwx̱wú7mesh example; the in-progress reading is shown by the data in (a), the habitual reading is shown by the data in (b) and the meaning of the imperfective sentence is given in (c):

(89) a. chen wa lulum
1S.SG IMPERF sing
'I am singing.' IN PROGRESS

b. chen wa lulum nilh n-sts'its'ap
1S.SG IMPERF sing FOC 1POSS-work
'I sing, that's my job.' HABITUAL

c. $\lambda t \exists e[\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{START-SING}(e_1) \wedge (\text{SING})(e_2)] \wedge t \subseteq \tau(e)]$

Crucially, the event that I am referring to in (a) above, is a single event consisting of two sub-events as shown in (c); however, the event I am referring to in (b) above is a habitual event

that has in its denotation a number of single sub-events, which in turn have two sub-events (identical to the one in (c). Thus, while the reference time of the two events is the same, the event time is different in that it is a larger period of time that contains a number of events within it.[26]

5.2. Imperfective accomplishments

The analysis must also account for the fact that *wa* induces both in-progress and habitual readings with Skwxwú7mesh accomplishment predicates. The in-progress reading is illustrated again below:

(90) a. na wa p'ayak-ant-as ta John ta snexwilh-s
RL IMPERF repair-TR-3ERG DET John DET canoe-3POSS
'John's fixing his canoe.'

b. chen wa xel'-t kwi sxwexwiy'am'
1S.SG IMPERF write-TR DET story
'I'm writing a story.'

c. na wa mikw'-int-as ta s7atsus lha Carrie
RL IMPERF wash-TR-3ERG DET face DET Carrie
'Carrie's washing her face.'

Recall that in Chapter Three I showed that accomplishment predicates modified by punctual clauses yield a number of different readings: inceptive, in progress, and culminating. However, as I also noted, in some cases, one reading will be preferred over another due to the availability of other constructions that yield a particular reading. For example, a speaker may provide an inceptive interpretation over an in progress reading for the accomplishment predicate modified by a punctual clause, since there is an alternate way, a better way, to express that the accomplishment is in progress, namely, using the imperfective form. The two example sentences below emphasize the contrast between the perfective form of an accomplishment predicate (a) and the imperfective form, introduced by *wa* (b); while the perfective form in (a) is nearly always offered in the English perfective, the

[26] As far as I can tell, whether the habitual event is in progress at the reference time (e.g., if John is a singer, but also happens to be singing at the reference time (now)), does not change the analysis. What is crucial is that the

imperfective form is always translated with the English progressive. The inceptive context is one where John begins to write (no words on the page yet, but he has the pen in hand). The medial context is one where John is part-way through writing (half the page is written and he is still holding the pen). The final context is one where the letter is completely written (the page is full, John is no longer holding the pen, but instead holding a completed letter):

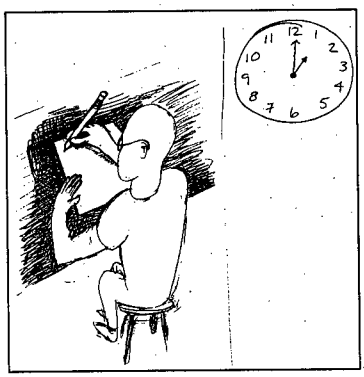
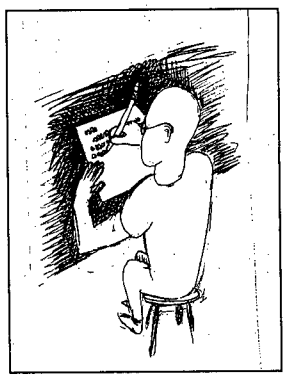
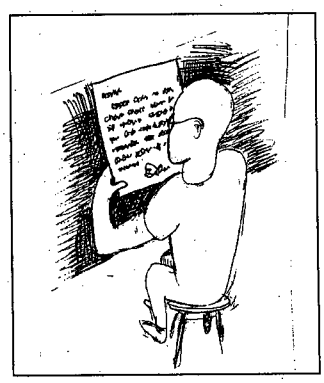
(91) a. na **xel'-t**-as ta sxwexwiy'am kwa John
RL **write-TR**-3ERG DET story DET John

na7 t-kwi an'us-k
LOC OBL-DET two-o'clock

'John wrote the story at two o'clock.'

Contexts:

✓Picture A: ✓Picture B: ✓Picture C:

b. chen wa xel'-t kwi sxwexwiy'am
1S.SG IMPERF write-TR DET story
'I'm writing a story.'

wa also induces a habitual reading with accomplishments as well. This is observed in the data below:

(92) a. na wa us-un't-es ta sta7uxwlh ta Skwxwu7mesh
RL IMPERF teach-TR-3ERG DET child DET Skwxwu7mesh
'Peter teaches the children Skwxwú7mesh.'

---

event time properly contains the reference time, which is true regardless of whether or not it is the case that a single event in the span of habitual events is in progress.

b. na wa ts'uy-un't-as ta sxawts kw John
RL IMPERF peel-TR-3ERG DET potato DET John

nilh sts'its'ap'-s
FOC work-3POSS

'John peeled the potatoes and that's his job.'

c. na wa xel'-t-as ta sxwexwiy'am' kwa John
RL IMPERF write-TR-3ERG DET story DET John
'He writes stories.'
(elicited from English 'John is a writer')

I take the following pair of sentences taken from a text as an illustration of the same contrast (between a perfective and imperfective form, with a habitual reading):

(93) a. ...xel'-t-as kwetsi smanit...
write-TR-3ERG DEM rock
'...[he] put a mark on the mountainside...'

b. ... welh men we7u kwetsi kwetsi7ts
and just continue DEM kwetsi7ts

wa xel'-t-as kwetsi smanit
IMPERF write-TR-3ERG DEM rock

'...while kwetsi7ts kept on putting marks on the mountainside.'[27]
(Kuipers 1967: 20)

The example below shows that imperfective sentences can be acceptable in both in-progress and habitual contexts:

(94) na wa mikw'-ent-as ta lhxenptn
RL IMPERF wash-TR-3ERG DET floor
'They're washing the floor.'
✓Context: they are doing it right now
✓Context: it's their job (they do it all the time)

As with activities, accomplishments contain DO sub-events; thus, imperfective *wa* is expected to yield an in progress reading since the reference time is properly inside the event time:

[27] *kwetsi7ts* is a proper name.

(95) *Accomplishments*

λtꓱe [DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [ꓱe' [culminates (e') in w' ∧ e causes e' in w']]]]](e) ∧ t ⊆ τ(e)]

The auxiliary *wa* in Sḵwx̱wú7mesh, unlike the CV reduplicant also induces a habitual reading, which this analysis needs to account for:

(96) a. chen wa x̱el'-t kwi sx̱ux̱uy'am
1S.SG IMPERF write-TR DET story
'I'm writing a story.' IN PROGRESS

b. na wa x̱el'-t-as ta sx̱wex̱wiy'am'kwa John
RL IMPERF write-TR-3ERG DET story DET John
'He writes stories.' HABITUAL

c. λtꓱe[WRITE(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [ꓱe' [the story gets written(e') in w' ∧ e causes e' in w']]]](e) ∧ t ⊆ τ(e)]

Again, as with activities, the in progress event referred to in (a) above consists of two sub-events, while the habitual event referred to in (b) consists of an undefined number of events where each of the events consists of two sub-events (again, identical to the event referred to in (c). With respect to the implicature that is part of the meaning of the accomplishment, while the data is not yet available, I might expect that this implicature would predict it to be possible for the sentence in (b) above to be true of a situation where one or more stories were never finished by the subject, in the appropriate context. This is due to the fact that the culmination is only an implicature and thus need not hold for each event.

Although the in-progress reading of the *wa* marked predicate and the in-progress reading of the CV-reduplicated predicate seem identical, their analyses are not. That is, the analysis of the CV-reduplicant as a progressive marker has a modalized component that the analysis of *wa* as an imperfective marker lacks. The contrast between the two is shown below with an example of the English progressive and the German imperfective. An English progressive accomplishment need not ever culminate in the actual world, only in an inertia world where nothing prevents the culmination (Dowty 1979). This is shown below where a

sentence containing a progressive accomplishment can be continued with a sentence stating that the culmination was never reached:

(97) Mary was writing a note to John to tell him she was going out, but then John came home while she was writing it (so she crumpled up the unfinished note and threw it away).

Although in a possible world where John didn't come home and nothing else happened to prevent Mary from writing the note, the note would have been finished, in the actual world presented in the above sentence, the note was never finished.

In contrast to the progressive, Kratzer's analysis of the imperfective has no modalized component and thus the culmination must be reached in the actual world. She illustrates with a sequence involving a German imperfective; the sentence in (b) below is infelicitous as it asserts that the culmination was never reached in the actual world:

(98) a. Wieland saß damals (gerade) im Gasthaus
Wieland sat then (at the moment) in-the pub

und verspeiste einen Hummer.
and consumed a lobster.

'Wieland was sitting in the pub then and was consuming a lobster.'

b. # Er hätte bestimmt mehr als nur ein paar Bissen
He had certainly more than only a few bites

gegessen, wenn ihm ein übereifriger Kellner
eaten if him a over - zealous waiter

nicht den Teller weggenommen hätte.
not the plate away-taken had.

'He would certainly have eaten more than a few bites if an overzealous waiter hadn't taken his plate away.'

(Kratzer 2004: 407, ex 32)

Given my proposal that Sḵwx̱wú7mesh has both a progressive marker and an imperfective marker, the same contrast is expected to exist in English. The problem is that Sḵwx̱wú7mesh accomplishments have no entailment of culmination. Their representation already has a modalized component that removes any requirement that it culminate in the

actual world. As a result the contrast between CV reduplicated (progressives) accomplishments and accomplishments marked with *wa* (imperfectives) does not seem to be empirically detectable with predicates of this class.

5.3. Imperfective achievements

Turning to achievements, the analysis must account for the fact that the habitual reading is the preferred reading for predicates of this class:

(99) a. chen wa wi7xw-em
1S.SG IMPERF fall-INTR
'I'm making a habit of falling.'

b. chen wa tl'exwenk
1S.SG IMPERF win
'I win all the time.' / 'I am a winner.'

c. na wa mekw'-em ti tala kwa John
RL IMPERF find-INTR DET money DET John
(no translation given)
Speaker's comments: "If he's doing it all the time"

While not all speakers allow for the in-progress reading of achievements, some do, as shown by the data below:

(100) chen wa yakw-nexw kwetsi mit
1S.SG IMPERF find-TR(LC) DEM dime
'I'm finding a dime right now.'

As shown previously, imperfective achievements marked by *wa* are typically only accepted under habitual readings. Recall that CV reduplicated achievements were judged ungrammatical by speakers or induced in progress readings. This was expected given that the progressive seems to restrict the event time to one event with no sub-events. Imperfective *wa*, however, differs from the reduplicant in that it allows the event time to include other sub-events. This accounts for why achievements have habitual readings, as shown below:

(101) a. chen wa tl'exwenk
1S.SG IMPERF win
'I win all the time.' / 'I am a winner.'

b. $\lambda t \exists e[WIN(e) \wedge t \subseteq \tau(e)]$

The claim here is that there is a large habitual event that consists of a number of single WIN events. However, there is at least one example where an imperfective achievement induces an in progress reading, as shown again below:

(102) chen wa yakw-nexw kwetsi mit
1S.SG IMPERF find-TR(LC) DEM dime
'I'm finding a dime right now.'

To account for this data, I appeal to the shifted accomplishment approach outlined for CV reduplicated achievements in section 4.2. above. Given that the habitual reading requires the least amount of work, it might be expected to be the most natural for imperfective achievements marked by *wa*.

Recall from §5.3. the proposal that the difference between the in-progress reading of a progressive accomplishment and an imperfective accomplishment in Skwxwú7mesh is not discernable since Skwxwú7mesh accomplishments do not have culmination entailments. As Kratzer (2004), and others, points out, the imperfective operator is not expected to combine with achievement that describe instantaneous events. As she notes, "there is no way for those events to be in progress. By the time you talk about them, they are already a matter of the past" (p. 407). However, as I have shown, Skwxwú7mesh achievements do sometimes occur in the progressive and also in the imperfective with in-progress readings. I propose that achievement predicates do have culmination entailments and thus we should be able to distinguish between the in-progress readings of progressive and imperfective achievements. The *wa* marked achievement should entail culmination in the actual world, while the CV-reduplicated achievement should have no such requirement. Unfortunately, I do not have the data to show that this is the case. The example in (102) above is suggestive in that the translation that the speaker gives for the imperfective achievement points to the fact that the event is going to be completed (with the addition of the comments "right now"), though further evidence is necessary to show that this is actually the case.

5.4. Imperfective inchoative states

Finally, recall that inchoative states are interpreted as inchoatives or statives in their basic form; when they appear with *wa*, predicates of this class are interpreted as statives:

(103) a. na wa t'ayak' ta John
RL IMPERF angry DET John
'John is mad.'

b. na wa kw'ay' ta mixalh
RL IMPERF hungry DET bear
'The bear is hungry.'

c. na wa katl'
RL IMPERF cloudy
'It is cloudy.'

d. na wa lhchiws kwa John
RL IMPERF tired DET John
'John is tired.'

A remaining question here is whether inchoative states have habitual readings with *wa*. There is some evidence that this may be possible. Consider the following translation of an example I give above:

(104) chen wa ts'ayakw lh-7as[28] wa tin-tin ta new'tstn
1S.SG IMPERF worry RLP-3CNJ IMPERF REDUP-ring DET phone
'I worry when the phone rings.'

However, further research is necessary to confirm this finding.

The representations are summarized again below:

(105) *Inchoative states*

a. $\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (P))(e_2)]$
b. $\lambda Q \lambda t \exists e\ [Q(e) \wedge t \subseteq \tau(e)]$
c. $\lambda t \exists e [\exists e_1 \exists e_2 [(e =^s (e_1 \sqcup e_2) \wedge ((\text{BECOME}(P))(e_1) \wedge (P))(e_2))] \wedge t \subseteq \tau(e)]$

[28] This sequence is realized as *tl'as*. Peter Jacobs (p.c.) notes that this is the effect of the glottal stop on the previous *lh-*.

The examples below illustrates again the meaning of an imperfective inchoative state marked by *wa*, and how this is derived from its basic representation:

(106) a.

chen	wa	ts'ayakw			
1S.SG	IMPERF	worry			
lh-7as	wa	tin-tin	ta	new'tstn	
RLP-3CNJ	IMPERF	REDUP-ring	DET	phone	

'I was worried when the phone rang yesterday.' STATIVE

b. $\lambda t \exists e \exists e_1 \exists e_2 [(e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME-WORRIED}(e_1) \wedge (\text{WORRIED}))(e_2)) \wedge t \subseteq \tau(e)]$

As with CV reduplicated predicates, inchoative states do not yield in progress events, but statives; this is expected given that they do not have DO sub-events. Recall that there is at least one example that suggests that inchoative statives marked by *wa* can be used in habitual contexts; this is repeated below:

(107)

chen	wa	ts'ayakw			
1S.SG	IMPERF	worry			
lh-7as	wa	tin-tin	ta	new'tstn	
RLP-3CNJ	IMPERF	REDUP-ring	DET	phone	

'I worry when the phone rings.'

This is slightly different from the habitual (or generic) contexts exemplified for the activities and accomplishments above where the reference time is unspecified. In the above sentence, the reference time is specified, but is relative to the individual worrying states induced by the phone ringing. The question is then, what is the relevant reference time and event time in these cases? At this point, I do not have an answer to this question, so I leave this for further research.

5.5. Summary and concluding remarks

A summary of the readings that result from *wa* marked predicates across the Sḵwx̱wú7mesh aspectual classes are given in the chart below:

(108) *Skwxwú7mesh predicates+ wa*

	Occurs with *wa*	Reading
Activities $\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	✓	in progress habitual
Accomplishments $\lambda e.(\text{DO}(P))(e) \wedge [\forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates } (e') \text{ in } w' \wedge e \text{ causes } e' \text{ in } w']]]]]$	✓	in progress habitual
Achievements $\lambda e.(\text{BECOME}(P))(e)$	✓	%in progress habitual
Inchoative States $\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (P))(e_2)]$	✓	stative habitual(?)

5.5.1. Potential problem

One problem that this analysis raises is that it might also predict that predicates marked with the progressive CV- reduplicant should have habitual readings in addition to in progress readings, since both analyses ensure that the reference time is inside the event time. It is either the case that the analysis of the imperfective needs to be adjusted in order to allow for the habitual reading, or it is the case that an additional claim must be made about the progressive in order to ensure that habitual readings are ruled out. I leave this issue for further research.

5.5.2. Generic quantification

In Bar-el (2003) I proposed that, adopting a Krifka et al. (1995) proposal regarding generics, sentences containing *wa* involved generic quantification in that they are characterizing sentences derived from episodic sentences. This avenue of analysis has as its advantage the fact that it is in accordance with Dahl's (1995) observation that "[t]here is a tendency for generics to be marked with imperfectives". Moveover, this generic analysis might also explain why *wa* is obligatory with *lhik'* 'always'.[29] Examples are shown in the data below (they may or may not surface with reduplication as well):

[29] See Bar-el (1998) for an analysis of adverbial quantification in Skwxwú7mesh. Gillon (2001) shows that under negation, *wa* is no longer obligatory with *lhik'*, but *–alh*, which she argues is an adverb that quantifies over times, is (ex. 50):

(109) a. lhik' wa (kw'a-)kw'ay' ta John
always IMPERF REDUP-hungry DET John
'John is always hungry.' INCHOATIVE STATE

b. lhik' wa paym
always IMPERF rest
'She's resting all the time.' ACTIVITY

c. lhik'-t chen wa tl'ik
always-PAST 1S.SG IMPERF arrive
'I used to arrive quite often.' ACHIEVEMENT

d. lhik' wa ch'em-t-as ta swi7ka-7ullh ta skwemay'
always IMPERF bite-TR-3ERG DET man-young DET dog
'The dog always bites the boy.' ACCOMPLISHMENT

The generic analysis does account for the habitual reading that arises in Skwxwú7mesh sentences containing *wa*; however, a major drawback is that it does not straightforwardly account for the fact that *wa* also yields an in-progress reading with nearly all the predicate classes.[30]

5.3. A comparison to St'át'imcets

In St'át'imcets, the habitual reading is a typical reading of inchoative states marked with *wa7* (cognate with Skwxwú7mesh *wa*):

(110) Wá7=lhkan t'alál.
IMPERF=1S.SG tired
(i) 'I am tired.'
(ii) 'I get tired (habitually).'

Comparing predicates with an without *wa7*, Davis (in prep) shows that statements containing unmarked states (a) would receive different responses (b):

---

haw chen k=alh lhik' lulum
NEG 1S.SG IRR=adv always sing
'I don't always sing' = 'I rarely sing'
L. Matthewson (p.c.) suggests, however, that the two glosses are not equivalent in meaning.

[30] See Bonomi (n.d.) for an attempt at accounting for the progressive reading of the imperfective in Italian via universal or generic quantification.

(111) a. Táytlhkan.
Speaker's comments: "Táytlhkan *is a statement, means you're telling somebody you're hungry, so they automatically offer you something to eat.*"

b. Wa7 lt7u ta záq'a.
"The bread's over there." *or* "There's bread over there."

(112) a. Wá7lhkan tayt.

b. Kánem zam'?
"So what?"/"What of it?"

Davis suggests that the response in (112b) differs from (111b)"[b]ecause, presumably, you're telling somebody that you habitually get hungry, which may be of general interest , but doesn't apply to the situation at hand" (Chapter 18)

Davis's analysis is slightly different than the one proposed here. He suggests that *wa7* supplies an initial transition so that they become "derived activities" whose process parts, *wa7* is then able to apply. This accounts for why states with *wa7* are translated as "to get (tired, hungry, scared)" rather than "to be (tired, hungry, scared)". These differences between Sḵwx̱wú7mesh and St'át'imcets needs to be further explored and is left for future research.

6. Co-occurrence of *wa* and CV

A remaining issue that has been alluded to is the co-occurrence of the imperfective *wa* and the progressive CV reduplicant. Not only can the two morphemes co-occur (as shown in some of the previous examples), this is often preferred. For accomplishments and activities, the reading induced by both morphemes is an in progress reading, as shown by the data below (the speaker's comments in (c) below emphasize the preference for both morphemes; moreover, the fact that some sentences are elicited without reduplication, but when asked to repeat them, speakers in many cases offer both *wa* and reduplication, also illustrates a possible preference for both morphemes) :

(113) *Accomplishments*

a. na wa p'a-p'aya<u>k</u>-ant-as
RL IMPERF REDUP-fix-TR-3ERG
'He's fixing it.'

b. chen <u>x</u>el'-t ta s<u>x</u>we<u>x</u>wiy'am'
1S.SG write-TR DET story

i na7-xw chen wa <u>x</u>e-<u>x</u>el'-t
and RL-still 1S.SG IMPERF REDUP-write-TR

'I wrote the story and I'm still writing it.'[31]

(114) *Activities*

a. na wa tskw'atsut ta John chen wa i-7imesh
RL IMPERF run DET John 1S.SG IMPERF REDUP-walk
'John was running, I was walking.'

b. chen wa i-7tut
1S.SG IMPERF REDUP-sleep

na7 t-7an'us-<u>k</u> na7 t-kwi chanat-<u>k</u>
LOC OBL-two-o'clock LOC OBL-DET three-o'clock

'I was sleeping from two o'clock to three o'clock.'

c. na7-xw u wa t'i-t'ichim
RL-still Q IMPERF REDUP-swim
'Is she still swimming?'
Speaker's comments: "That would be the proper way" (volunteered form for non-reduplicated sentence)

Inchoative states also occur with both the imperfective *wa* and the CV reduplicant; for these predicates, the induced reading is stative, as shown by the data below:

(115) *Inchoative States*

a. na7-xw chen wa ts'u-ts'ulhum
RL-still 1S.SG IMPERF REDUP-cold
'I'm still cold.'

[31] This sentence was elicited without reduplication, but repeated by the speaker with reduplication.

b. na wa ilhen̓
RL IMPERF eat

ta hiyi mixalh na wa kw'a-kw'ay'
DET big black.bear RL IMPERF REDUP-hungry

'The hungry big bear is eating.'

c. na wa t'a-t'ayak ta Peter
RL IMPERF REDUP-angry DET Peter
'He's been mad for quite a while.'
Context: contrasted with inchoative reading of unmarked predicate

Finally, recall that achievement predicates can be incompatible with CV reduplication, but can induce in progress readings; they also induce habitual readings with *wa*. The example below shows that the co-ocurrence of *wa* and reduplication appears in this case, in a specialized context where the entire arriving event that seems to consist of a number of smaller arriving events is in progress:

(116) *Achievements*
na tl'ik ta-n siiyay' ti natlh
RL arrive DET-1POSS friends DET morning

na7-xw wa tl'i-tl'ik
RL-still IMPERF REDUP-arrive

'My friends arrived this morning...they're still arriving.'
Speaker's comments: "There were still more coming"

I might predict that since *wa* can induce a habitual reading, but the CV reduplicant can only induce an in progress or stative readings, the co-occurrence of both *wa* and CV reduplication could yield a habitual reading of an in-progress predicate. I have not yet elicited data such as these, but would expect it to look as follows:

(117) na wa xe-xel'-t-as ta sxwexwiy'am'
RL IMPERF REDUP-write-TR-3ERG DET story

welh haw k-es i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR(LC)-3ERG

Expected translation/context: 'He's always in the middle of writing a story, but never finishes).'

I expect that speakers will insert *lhik̲'* 'always' or another adverb in to express the habituality overtly.

As it stands (setting aside for the moment that the habitual meaning is not yet accounted for by the meaning of the imperfective), the meaning of the progressive includes the meaning of the imperfective, but adds an additional modal component. That being said, this may explain why the in-progress (stative) reading seems to be the common reading when the two co-occur in Sk̲wx̲wú7mesh since that is the basic meaning they share in common. However, until I can show whether or not the habitual reading is possible when the two co-occur, I cannot yet analyze the data in this way.

7. Verbal number vs. aspect

The readings associated with the progressive and the imperfective cross-linguistically have been shown to be induced by verbal number. In this section, I examine the notion of verbal plurality and its relation to aspect, and present a previous analysis of the Sk̲wx̲wú7mesh CV reduplicant and morphme *wa* as pluractional markers. I argue that these are not the correct avenue of analysis for these morphmes. I show that there is evidence elsewhere in the grammar for verbal number, and that empirically and theoretically, the aspectual analysis of these morphemes proposed in this chapter is the correct one.

Many languages express plural events independently of the verb. For example, the English sentence in (a) below is ambiguous between a reading where there is one singing event or a multiple of singing events. The addition of the phrase *over and over* disambiguates these readings yielding the plural event reading only, as in (b) below:[32]

(19) a. Margot sang a song.

b. Margot sang a song over and over.

(Corbett 2000:245, ex. 6)

[32] There are various other ways that plural events are expressed in English (numerals, other adverbial expressions (repeatedly, habitually, many times...). While many of these expressions are also available in Sk̲wx̲wú7mesh, the difference is that in Sk̲wx̲wú7mesh the basic notion of plurality can be expressed on the verb, while it cannot in English (i.e. **I spilled-s the water*).

Cross-linguistically there are numerous languages from a variety of language families that exhibit this distinction between singular and plural events via overt morphological marking on the verb (Corbett 2000, Cusic 1981, Lasersohn 1995, Mithun 1999 among others for references). In these languages *number* is not only a nominal category but a verbal category. Verbal number is defined as morphological number marking on the verb that refers to the events denoted by the verb and not the arguments of the verb.[33] For various languages, these morphemes have been labeled *pluractional markers*. The fact that the singular/plural number distinction typical of the nominal domain also appears in the verbal domain is not entirely unexpected given that processes such as quantification are seen as applying both to events and individuals (see Bach et. al 1995, Landman 1997 and Lasersohn 1995), as well as the fact that parallels have been drawn between the mass/count distinction of the nominal domain and the stative/eventive distinction in the verbal domain (see Bach 1986, Krifka 1992 and references therein).

Across the world's languages, verbal number gives rise to a variety of readings, including (but not limited to) repetitiveness, repeated occasions or events, duration, continuity, distribution, augmentation, habituality, frequency, among others (see Corbett 2000, Cusic 1981, Lasersohn 1995 and references therein). Many languages that exhibit verbal number do so via reduplication.

Lasersohn labels a type of verbal number a *pluractional marker*; as he states, they "attach to the verb to indicate a multiplicity of actions, whether involving multiple participants, times, or locations...[they] do not reflect the plurality of a verb's arguments so much as the plurality of the verb itself" (1995). A simplified definition for pluractional markers is given below:

(118) $V\text{-}PA(X) \Leftrightarrow \forall e \in X[P(e)]$

where V=verb
PA=pluractional marker
X=ranges over sets of events
P=free variable ranging over properties of events

[33] There are cases where the individuals involved are affected by the verbal marking in addition to the event denoted by the verb. However, it is never the case that only the individuals (and not the event) are affected by

Based on a survey of the variety of readings of plurational markers cross-linguistically, that Cusic (1981) discusses, Lasersohn, among other things, distinguishes between repetitive and repeated action readings. As he notes, "*repeated* action involves multiple events of the type denoted by the verb, while *repetitive* action involves multiple events of a different type, but which sum up to form a single token of the event type corresponding to the verb" (p. 244). The following are corresponding examples:

(119) a. John hit the ball over and over. REPEATED ACTION = MULTIPLE HITS

b. The mouse nibbled the cheese. REPETITIVE ACTION = MULTIPLE SMALL BITES

Formally, Lasersohn proposes that *repeated* actions arise when P in the given formula is the verb itself (as in (a) below). On the other hand, repetitive actions arise when P is lexically fixed (as in (b) below); that is, the multiple events are dependent on what the sub-events of a given verb are – in the case of nibbling, this is a series of small bites, but this will differ depending on the verb:

(120) a. HIT-PA(X) $\Leftrightarrow \forall e \in X$[HIT(e)]
REPEATED ACTION;P=V

b. NIBBLE-PA(X) $\Leftrightarrow \forall e \in X$[SMALL BITE(e)]
REPETITIVE ACTION;P=lexically fixed

In Sḵwx̱wú7mesh, and Salish in general, plural marking results from CVC reduplication (a copy of the first and second consonants, and the insertion of schwa, regardless of the vowel quality of the base). Nouns marked with a CVC reduplicant are interpreted as plural individuals:[34]

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the verbal marking.

[34] See van Eijk (1998) and references therein for further discussion of CVC reduplication across the family.

(121) a. hiyi ta mix̲alh
big DET bear
'The bear is big.'

b. hiyi ta **mex̲**-mix̲alh
big DET REDUP-bear
'The bears are big.'

(122) a. na wa lulum ta slhanay'
RL IMPERF sing DET lady
'The woman is singing.'

b. na wa lulum ta s-**lhen**-lhanay'
RL IMPERF sing DET NOM-REDUP-lady
'The women are singing.'

The CVC reduplicant also surfaces on verbs to yield plural events:

(123) a. lha Linda na kwe'lh-nexw-as kwetsi stak̲w
DET Linda RL spill-TR(LC)-3ERG DEM water
'Linda spilled the water (by accident).'

b. Context: Linda is accident prone, klutzy
lha Linda na kw'elh-kw'elh-nexw-as ta stak̲w
DET Linda RL REDUP-spill-TR(LC)-3ERG DET water
'Linda spills the water all the time.'
Speaker's comments: "She's always spilling...it's a (bad) habit..."you can say that instead of lhik̲' ['always']"

(124) a. chen kwelesh-t ta sx̲wi7shn
1S.SG shoot-TR DET deer
'I shot a deer.'

b. chen kwel-kwelesh-t ta sx̲wi7shn
1S.SG REDUP-shoot-TR DET deer
'I shot it several times.'
'I shot the deer continuously.'[35]
✓Context: my job is hunting

(125) a. chen tselk̲w'-an ta smant
1S.SG kick-TR DET rock
'I kicked the rock.'
Speaker's comments: "You did it once"

[35] This sentence was elicited on two separate occasions with the same speaker, resulting in two different glosses.

b. chen tsel-tselkw'-an ta smant
1S.SG REDUP-kick-TR DET rock
'You're kicking it.'

(126) a. chen sak'-an ta seplin
1S.SG cut- TR DET bread
'I cut the bread.'
Speaker's comments: "Just once" (in response to 'one slice or whole loaf?')

b. chen sek'-sak'-an ta seplin
1S.SG REDUP-cut- TR DET bread
'I sliced the bread.'
✓Context: I cut it more than one time
✓Context: entire loaf is cut up in pieces

(127) a. chen tl'exwenk
1S.SG win
'I won.'

b. chen tl'ex-tl'exwenk
1S.SG REDUP-win
'[I'm] winning all the time.'

(128) a. chen lhikw'-shn
1S.SG hook-foot(LS)
'I tripped.' (lit. get your foot hooked)

b. chen lhekw'-lhikw'-shn
1S.SG REDUP-hook-foot(LS)
'I tripped.'
Speakers' comments: "You were getting tripped constantly"

(129) na lhelh-lhelh-sp'utl'em
RL REDUP-ingest-smoke
'He's a smoker.', 'He does smoke.'

(130) a. chen exw-i7n
1S.SG cough-INTR
'I coughed (once).'

b. chen exw-7exw-i7n
1S.SG REDUP-cough-INTR
'You coughed many times.'
Speaker's comments: "Almost like kexalh [many times]"
✗ Context: You are coughing all the time because you're sick

Notice that these events are often interpreted aspectually in that they are translated as habitual or iterative events.

The fact that the same morpheme can be used on both nouns and verbs is one indication that CVC in Skwxwú7mesh marks plural only, and the type of plural marking (verbal =event plurality or nominal = individual plurality) is strictly dependent on the category of the lexical item to which the CVC is attached. The consequences of such an analysis is that the aspectual readings associated with the verbal pluralities is simply a by-product of the event plurality and that the CVC is not aspectual in nature (see Bar-el 2001).

The question is then, should all morphemes that seem to be aspectual be analyzed in the same way (i.e. as number)? That is, are all instances of aspect simply a by-product of plurality or should they be analyzed separately?

In this chapter I have presented a number of examples of CV reduplication that I have argued is a progressive marker; the question is whether this reduplicant can be analyzed as another instance of plurality. Some examples are given again below:

(131) a. na nam' **ké**-kew na7 ta stakw
RL go REDUP-descend LOC DET water
'he went down and down.'

b. na **we**-wlhkw-m ta stakw
RL REDUP-boil-INTR DET water
'The water is bubbling.'

c. **t'ú**-t'ukw' kwa Peter
REDUP-go.home DET Peter
'On his way home, coming home.'

d. chen **xwi**-xwil'ts-an ta kp'a7elch-s ta kw'axwa7
1S.SG REDUP-open-TR DET lid-3poss DET box
'I'm in the process of doing it [opening the lid for the box].'

e. chen **xi**-xitl'-in ta stsek
1S.SG REDUP-chop-TR DET tree
'I continuously chopped the wood.'

f. na **p'a-p'ayak**-ant-as ta snexwilh-s
RL **REDUP-fix**-TR -3ERG DET canoe-3POSS
'He's in the process of fixing it.'

One analysis is that the CV is another instance of plural marking, but in the case of CV, the plurality is of something smaller than the predicate itself – a sub-part of the predicate. This contrasts with CVC where it is the entire predicate that is pluralized, This was first suggested in Bar-el (1998) with respect to *wa*, which seems to yield the same readings associated with CVC (habitual) and CV reduplication (in progress). It was further argued to possibly be the case for the Sḵwx̱wú7mesh CV reduplicant in Bar-el (2001). As the CV reduplicant is not associated with habitual readings, but in progress readings only, I proposed in there that these readings result when P is lexically fixed; this is illustrated below:

(132) na **p'a-p'ayak̲**-ant-as ta snexwilh-s
RL **REDUP-fix**-TR-3ERG DET canoe-3POSS
'He's in the process of fixing it.'

REPETITIVE ACTION P=lexically fixed
FIX-PA(X) ⇔ ∀e ∈ X[FIX-SUB-EVENT(e)]

Wiltschko (p.c) suggests that this is indeed the case in Halkomelem (a related Central Salish language); she argues that the two types of reduplication target different syntactic projections. Under this analysis, how is the fact that this reduplicant does not target nouns explained? Wiltschko suggests that nouns lack this projection, and thus CV reduplication of nouns does not occur. This might suggest that this is either specific to Sḵwx̱wú7mesh (the fact that nouns lack a particular projection) and that there are languages where nouns DO have that structure, and thus, a reduplicant such as this might attach to nouns. What meaning would that yield? An obvious question that arises is what would be the parallel to sub-events in the nominal domain. It might also be expected that in Sḵwx̱wú7mesh, a noun could be coerced into having sub-events/being "verby" that could be CV reduplicated.

One argument against this analysis is to propose that nouns lack sub-eventual structure. If the CV reduplicant targets only sub-events, this accounts for why nouns are never CV reduplicated.[36] There is, however, a major problem with the analysis above. If I assume that CV is simply number, I lose the fact that although in a sentence like that in (a) below, there is no reference to the sub-events that make up the activity of *fixing*, there is an

[36] H. Davis (p.c.) suggests that this argument would account for final reduplication (a progressive-like morpheme) in Lillooet.

entailment that those sub-events exist. Thus, while the sentence in (b) appears to refer to a plurality of sub-events of fixing, the CV does not create those sub-events, they are already there, they simply are visible in the progressive due to the fact that the reference time of the event is properly included in the event time:

(133) a. na p'ayak̲-ant-as ta snexwilh-s
RL fix-TR-3ERG DET canoe-3POSS
'He fixed the canoe.'

b. na p'a-p'ayak̲-ant-as ta snexwilh-s
RL REDUP-fix-TR-3ERG DET canoe-3POSS
'He's in the process of fixing it.'

Unless the event of fixing the canoe in (a) happened "all at once" (as though it were an instantaneous event), there had to have been some time that passed where fixing took place. In other words, if CV were only an instance of number and not viewpoint, for example, the claim would be that perfectives all take place at instances rather than intervals. If that were the case, following sentences would not be expected to be grammatical:

(134) a. na p'ayak̲-ant-as ta tetxwem ta John
RL fix-TR-3ERG DET car DET John
welh haw k̲-as i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR(LC)-3
'He fixed the car, but he didn't finish.'

b. na7-t p'ayak̲-ant-as ta tetxwem ta Peter
RL-PAST fix-TR-3ERG DET car DET Peter
kwi chel'ak̲lh... iw'ayti na7-xw wa p'ayak̲-ant-as
DET yesterday maybe RL-still IMPERF fix-TR-3ERG
'Peter fixed the car yesterday...maybe he's still fixing it.'

In other words, it can't be possible to *not have finished*, or *still be fixing* if the event was instantaneous to begin with.

The claim here is that the CV reduplicant is not a plural morpheme, but an aspectual morpheme. Under this view, the fact that this reduplicant targets only verbs is explained since aspect targets verbal predicates alone.

8. Conclusion

In this chapter I have argued that the Sḵwx̱wú7mesh CV reduplicant is a progressive marker and the morpheme *wa* is the Sḵwx̱wú7mesh imperfective marker. Adopting Dowty's analysis of the progressive, I have shown that the predicate representations proposed in Chapters Two and Three correctly predict the readings associated with sentences containing CV reduplicated/progressive predicates. I also argued that adopting Kratzer's analysis of the imperfective, along with the proposed predicate representations, correctly predict the in progress readings associated with sentences containing *wa*/imperfective predicates. However, the analysis as it stands does not explain why CV reduplicated predicates in Sḵwx̱wú7mesh have habitual readings. Finally, I suggested that although readings induced by pluractional markers are observed with progressive and imperfective markers, the verbal number analysis, under a certain view, predicts the wrong results for Sḵwx̱wú7mesh.

> *[t]he difference between* wrote *and* was writing *is so elusive and differs so much for different verbs and in different phrases, that the definer, after stating the main principles, cannot do better than to resort to a demonstration by means of examples.*
>
> (Bloomfield 1933: 280)

1. Overview

The reader may already have observed that some of the tests used to understand and explain the Sḵwx̱wú7mesh aspectual system are replicable in English. Thus, the claims I make based on the results of these tests in Sḵwx̱wú7mesh have consequences for English (and any language where these diagnostics are replicable, for that matter); that is, the English aspectual system needs to be re-considered, or at least, considered in light of the Sḵwx̱wú7mesh facts. The question is then whether the English system needs to be revised to reflect the findings of this thesis, or whether the English and Sḵwx̱wú7mesh aspectual systems differ. I argue in this chapter that both of these are true.

Second, I have shown that various sentences that in English are infelicitous, are judged felicitous in Sḵwx̱wú7mesh; moreover, some sentences that are felicitous in both English and Sḵwx̱wú7mesh are accepted in different contexts in the two languages; these distinctions have led me to propose some aspectual class representations that are quite different from English. Informal discussions with native English speaking linguists, as well as comments from anonymous reviewers have remarked that some of the judgements I have proposed for English sentences are not correct. Furthermore, the literature suggests a variety of different readings of some of these sentences. Thus, rather than relying on judgements based on my own introspection (which by now are most likely too tainted in light of the research I have been conducting), I have elicited judgements from non-linguist native speakers of English in order to establish some basic descriptive generalizations. I hope in this chapter to demonstrate the need for careful fieldwork on even the most widely studied languages.

The focus of this discussion will be on activities and accomplishments. It is clear by now that accomplishments in Sḵwx̱wú7mesh are different from those in English. As for activitites, although they behave the same in both languages, I show here that we need to reconsider the analysis of English activities. Although there is also clearly a difference between states in English and inchoative states in Sḵwx̱wú7mesh, they are not included in this discussion as I have not yet systematically elicited the relevant English data.

The chart below illustrates a comparative look at the proposed representations of Sḵwx̱wú7mesh activities and accomplishments and those representations proposed by Rothstein (2004) for English:

(1) *Accomplishments and Activities in English and Sḵwx̱wú7mesh*

	Sḵwx̱wú7mesh (Bar-el)	**English (Rothstein)**
Activities	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (DO(P))(e_2)]$	$\lambda e.(DO(P))(e)$
Accomplishments	$\lambda e.[DO(P))(e) \wedge [\forall w'$ [w' is an inertia world w.r.t. w at the beginning of e $\rightarrow$ [$\exists e'$ [culminates (e') in w' $\wedge$ e causes e' in w']]]]]	$\lambda e.\exists e_1 \exists e_2 [e=^s(e_1 \sqcup e_2) \wedge DO(P)(e_1) \wedge \text{BECOME}(P)(e_2)]$

I argue that activities in Sḵwx̱wú7mesh have an initial point, represented as BECOME, built into their representation. Rothstein's representation for English has no initial BECOME sub-event. Moreover, I argue that accomplishments in Sḵwx̱wú7mesh have culmination implicatures, and thus in their representations, they lack a final point (in my terms, a final BECOME sub-event), while Rothstein's representation for accomplishments has a final point built into the representation.

Some of the diagnostics used in this thesis to argue for the presence/absence of initial and final points in the basic meaning of predicate classes are diagnostics that can be used in English as well. The results of these tests for English are reported in a variety of ways in the literature; furthermore, with respect to the diagnostics used in this thesis that are not language-internal, the literature does not seem to address whether the results of these tests have any bearing on the status of endpoints. These are the issues that I address here.

A summary of the tests for initial points and final points used in Chapters Two and Three is given below:

(2) *Final Point Diagnostics*

a. Culmination cancellation
b. Event continuation
b. *kilh* 'almost'
d. Negation

(3) *Initial Point Diagnostics*

a. Punctual clauses
b. The auxiliary *mi*

Given that the facts about *almost* and negation in English do not seem to be controversial and the fact that the auxiliary *mi* is a language-specific test, I focus this discussion on three tests in English: culmination cancellation, event continuation and punctual clauses. In this chapter I examine some English facts collected from fieldwork conducted with non-linguist native speakers of English.

The next question is: what are the consequences of these data on our understanding of the structure of activities in English? I have used these data, along with other diagnostics, to provide evidence that Sḵwx̱wú7mesh activities have initial points as part of their basic meaning. These initial points are represented with the operator BECOME as part of the denotation of activity predicates in Sḵwx̱wú7mesh. Rothstein represents activities in English as λe.(DO(P))(e). The question is whether English activities should be represented in the same way as Sḵwx̱wú7mesh activities.

I argue in this chapter that since English and Sḵwx̱wú7mesh do behave similarly with respect to the diagnostics discussed in this chapter, the representation of English activities is actually the same as the proposed representation for Sḵwx̱wú7mesh activities: predicates that contain an initial BECOME sub-event, followed by a DO sub-event. For English accomplishments, the facts for English and Sḵwx̱wú7mesh are different, and thus their representations remain different as well. However, this chapter also shows that factors such as pragmatics, tense and predicate choice need to be taken into consideration. I begin the discussion with activities.

2. Activities

In this section, I examine initial points and final points of activities in both Sḵwx̱wú7mesh and English. I argued in Chapter Three that Sḵwx̱wú7mesh activities have initial points, based on two diagnostics, the result of one being the inceptive reading induced by punctual clauses. I argue here that English activities also have initial points as they too have inceptive readings when modified by punctual clauses. This picks up on Smith's (1997) claim that initial points of activities are natural, but here I introduce this initial point into the representation of activities.

I showed in Chapter Two that Sḵwx̱wú7mesh activities have no final points, based on four diagnostics, the results of two being the fact that activities can be continued and their final points can be cancelled without inducing contradictions. In this section I show that the same is true for English activities, as has already been noted in the literature. Here, I explore some data given in Smith (1997) and show that some of the results of my study are different from hers. Setting aside the additional factors that can potentially affect the data, I conclude that English activities can be continued and their final points can be cancelled without inducing contradictions.

2.1. Initial points: punctual clauses

2.1.1. Sḵwx̱wú7mesh activities

Recall the facts regarding activities introduced in Chapter Two. Punctual clauses/adverbials induce inceptive readings of perfective activities in Sḵwx̱wú7mesh. Some examples are repeated again below:

(4) a. chen x̱ay-m kwi-n-s kw'ach-nexw kwa John
1S.SG laugh-INTR DET-1POSS-NOM see-TR(LC) DET John
'I laughed when I saw John.'
Speaker's comments: It's because you saw John that you started to laugh

b. na itut ta John na7 ta an'us-ḵ
RL sleep DET John LOC DET two-o'clock
'John slept/fell asleep at two.'

c. chen lulum kwi s-es tl'ik' ta John
1S.SG sing DET NOM-3POSS arrive DET John
'I sang when John got here.'
*'I was singing when John got here.'

d. chen tkwaya7-n ta slulum
1S.SG hear-TR DET sing

kwi s-es tl'ik kwa John
DET NOM-3POSS arrive DET John

'I heard the song when John got here.'
✓Context: John was singing the song (I only heard it once he got here)
×Context: I could hear it before John arrived – *Speaker's comments: "I guess it's possible, but only if you were a spiritual dancer"*

Recall that the inceptive reading of a perfective sentence containing an activity predicate is further emphasized when contrasted with an imperfective sentence, such as one consisting of the imperfective auxiliary *wa*, as shown below:

(5) a. chen xaa-m kwi s-es tl'ik kwa John
1S.SG cry-INTR DET NOM-3POSS arrive DET John
'I cried when John got here.' PERFECTIVE

b. chen wa xaam kwi s-es tl'ik kwa John
1SUB.SG IMPERF cry DET NOM-3POSS arrive DET John
'I was crying when John got here.'
Speaker's comments: "You say this if you had been crying for a while before"
IMPERFECTIVE

This diagnostic was one used in Chapter Three to argue that Skwxwú7mesh activities have initial points as part of their representations (represented as initial BECOME events), as shown below:[1]

(6) $\lambda e.\exists e_1 \exists e_2 [e =^{s} (e_1 \sqcup e_2) \wedge \mathbf{(BECOME(P))(e_1)} \wedge (DO(P))(e_2)]$

Recall that the argument is that if there were no initial point built into the representation of Skwxwú7mesh activities, there would be no way to account for the inceptive readings

induced by punctual clauses/adverbials without stipulation (e.g., without assuming that the punctual clause itself introduces the initial point).

Let us now consider this representation with respect to the English facts.

2.1.2 English activities

Parallel facts to those presented for Sḵwx̱wú7mesh above have also been reported in the literature for English sentences of the same type; perfective sentences containing English activity predicates yield inceptive readings when modified by a punctual clause or adverbial. Some examples are given below:

(7) a. Mary swam when the bell rang.
(= Mary started swimming when the bell rang)
(Smith 1997, p. 64, ex. 6)

b. John ran at 9 p.m.
(=John began to run at 9pm)
(Rothstein 2004: 25, ex. 41c)

Recall that Smith suggests that "the perfective is taken as an inceptive [in (a)] because swimming is a durative event. It is not plausible that a swimming event occur in its entirety at the same time as a bell ringing, but entirely plausible that it begin at that time" (1997:65). Recall also that Rothstein suggests that "when an activity occurs with a punctual adverb, the effect is to assert that the activity began at the temporal point given, presumably since this is the only privileged instantaneous event available" (2004:25).

These facts have been replicated in my own study with naïve native English speakers. For this part of the elicitation, I asked speakers to judge sentences containing activity predicates (bolded below) and punctual clauses/adverbials (underlined).[2] An example sentence is given below:

(8) Mary **sang/danced/cried/played/ate** at 2pm/when John arrived.

[1] A shift operation is required to account for *how* the punctual clause picks out the initial point.

All speakers that were asked accepted all the above sentences as felicitous, with the exception of the predicate *play*, which was considered odd by one of the speakers. One speaker found that with the predicate *cry*, the punctual adverbial seemed to require a special context although the punctual clause did not. With the exception of one, all speakers allowed the inceptive reading for these sentences. Those speakers who offered comments on these sentences indicated that the inceptive reading was the most natural one for them before they began to consider other contexts that I had offered (namely the instantaneous reading). The following comments emphasize the preference for the inceptive interpretation (each numbered example is taken from a different speaker):

(9) Mary sang when John arrived.
Speaker's comments: "Started singing is most natural – you don't even have to say started, it is assumed" (in response to the instantaneous context)

(10) a. Mary sang at 2pm.
✓Context: inceptive (speaker volunteers this reading)

b. Mary danced when John arrived/walked in.
✓Context: inceptive (speaker volunteers this reading)
Speaker's comments: "Maybe she was happy to see him"

(11) Mary cried at 2pm.
Speaker's comments: "Crying is something that happens unexpectedly so it seems odd you would know exactly when she started crying. Though I suppose if her favourite sad movie ***started at 2 pm*** *then it'd be less strange... Maybe if someone had called her with bad news at a specific time.*

In the second part of this question, speakers are asked to evaluate the sentences in the above set containing punctual adverbials in the following contexts:

(12) a. Could you use the sentence to mean that she started at two p.m. (e.g., she started to sing at two p.m. and stopped at 3pm)?

[2] There were nine speakers altogether; the first seven speakers were asked to complete a questionnaire, while the last two speakers were asked questions in elicitation contexts, where only a sample of the sentences were asked.

b. Could you use the sentence to mean that she finished at two p.m.? (e.g., she stopped dancing at two p.m. but started at noon)?[3]

c. Could you use the sentence to mean that she did it all at once at two p.m. (e.g., she started dancing around two p.m. and stopped shortly after)?

The results for this part of the study were that all but one of speakers considered the sentences felicitous in the inceptive context (some examples are given in the previous data set). Comments from the one speaker who did not judge the sentences felicitous, however, indicate the availability of the inceptive reading for that speaker; that is, the speaker uses the punctual adverb to indicate an inceptive reading of the predicate. This is shown by the example below:

(13) Mary ate at two p.m.
Speaker's comments: "[Re: terminated reading] She basically started at 2-ish" [question to speaker: what if she took one hour to eat?] "No, then you would say she ate at 1pm"

All but one of the speakers allow for the "all at once" reading (henceforth, *instantaneous*) for each sentence; in many cases, speakers provide the relevant context in their comments, as illustrated in the examples below:

(14) Mary sang at two p.m.
Speaker's comments: "[Re: all at once] Yes.. because I think with singing you could sing one note and say that you sang, just like the CBC time signal at 10 o'clock"

(15) a. Mary sang at two p.m.
Speaker's comments: "Could have been 1 bar of music"

b. Mary danced at two p.m.
Speaker's comments: "Could have been one or two dance steps"

[3] Only after I conducted this fieldwork did I realize that using the term "finished" for English activities was not appropriate, even if it was explained afterwards. While I do not think this skewed the results, it should be at least noted here since *finish* is claimed only to occur as the complement of accomplishments (Dowty 1979: 57), or be "odd with atelic verb constellations" (Smith 1997: 43).

(16) a. Mary ate at two p.m.
Speaker's comments: "If she was eating something small she could eat it all at once"

b. Mary cried at two p.m.
Speaker's comments: "If you think of cried as in yelled then it makes more sense. You can yell once at a particular time".

One speaker seemed to accept the sentences as felicitous in instantaneous contexts only when the speaker could interpret the event as possibly being short. In this study, the only short activity predicate for this speaker was cry, as shown by the example in (a) below; predicates such as *eat* or *dance* could not be considered short enough, as shown by the examples in (b) and (c):

(17) a. Mary cried at two p.m.
Speaker's comments: "Could take short time to cry (i.e., a hit, fall, etc)

b. Mary danced at two p.m.
Speaker's comments: "It would take time to complete the dancing"

c. Mary ate at two p.m.
Speaker's comments: "It takes time to eat"

The sentences were not judged felicitous in the terminating context by any speaker, as emphasized by one speaker's comments on the entire data set: "The statement does not give any info on when she stopped". However, the culminating reading was accepted by two speakers only under the interpretation of the instantaneous reading; that is, since the event is interpreted as short, Mary both started and finished the event at the given time. For the speaker who categorizes *cry* as a possible short event, allowed the instantaneous reading, and consequently the culminating reading for that predicate alone.

The in progress reading was, unfortunately, not tested with all speakers; however, of the three speakers that were tested, none of them allowed the in progress reading for the perfective activity predicates modified by punctual clauses/adverbials. Some examples, including speakers' comments, are given below:

(18) a. We ate when John arrived.
Speaker's comments: [Could we be in the process of eating?] "No, then you would say 'we were eating'...then we would not be waiting for John as the sentence implies"

b. Mary danced when John arrived.
Speaker's comments: [Could she have been dancing before he walked in?] "then you would have to use the progressive"

(19) Mary sang when John arrived.
Speaker's comments: [Could she have been singing before he arrived?] "No...you would have to say 'she was singing'"

(20) Mary cried when John walked in.
Speaker's comments: [Question to speaker: could John have walked in while she was crying?] "You wouldn't say that, you would say Mary was crying"

2.1.3. Summary: initial points

To summarize the English and Sḵwx̱wú7mesh facts regarding initial points, the inceptive reading is the preferred reading for both English and Sḵwx̱wú7mesh activity predicates modified by punctual clauses/adverbials. The in progress and culminating readings are unavailable in either language. As for the instantaneous reading, the English data show that (for some speakers) it is available, so long as the relevant context is given. Unfortunately, I have not yet elicited the relevant Sḵwx̱wú7mesh data for these types of sentences. However, I argue that the semelfactive-like examples of activities presented in previous chapters are indeed examples of the instantaneous reading of activities (and in many cases, the most natural). An example is repeated below:[4]

(21) a.

chen	**xwitim**	kwi	s-es	tin-tin	ta	new'tstn
1S.SG	jump	DET	NOM-3POSS	REDUP-ring	DET	phone

'I jumped when the phone rang.'
Speaker's comments: "Maybe it startled you"

With predicates whose instantaneous reading may not be as salient, there is at least one piece of data that illustrates the availability of the instantaneous reading, as shown by the data below:

(22) chen xay-m kwi-n-s kw'ach-nexw kwa John
1S.SG laugh-INTR DET-1POSS-NOM see-TR(LC) DET John
'I laughed when I saw John.'
✓Context: inceptive
✓Context: instantaneous (*a single "ha"*)

However, it is often the case that these examples are not always easy to elicit, and thus, further research is necessary in establishing this fact for Skwxwú7mesh.[5]

A summary of the facts are given in the table below:

(23) *English and Skwxwú7mesh Activities*

	Punctual Clauses			
	Inceptive	**Term.**	**In prog.**	**Instant.**
Skwxwú7mesh	✓	×	×	✓(?)
English	✓	×	×	✓

In Chapter Three I argued that based on the Skwxwú7mesh data, activities have initial points. The results of the English data parallel Skwxwú7mesh and as a result, I argue that English activities have initial points as well. In the next section, I turn to final points.

2.2. Final points: culmination cancellation and event continuation

2.2.1. Skwxwú7mesh activities

In Chapter Two, I suggested that Skwxwú7mesh activity predicates did not have final points in their representation, based on their behaviour with four diagnostics: culmination cancellation, event continuation, ambiguity with *kilh* almost and ambiguity with negation. Here I focus on culmination cancellation and event continuation; recall that the termination of perfective activities can be cancelled without inducing a contradiction:

[4] These predicates do not require punctual clauses/adverbials to induce the semelfactive-like readings.
[5] I believe that it is not easy to elicit these readings in English either.

Termination Cancellation

(24) a. na lulum ta John welh haw k-as i huy
RL sing DET John CONJ NEG IRR-3CNJ PART finish
'John sang, but he didn't finish the song.'

b. na t'ich-im lha Mary
RL swim-INTR DET Mary

welh haw k-as i huy
CONJ NEG IRR-3CNJ PART finish

'Mary swam but she didn't finish swimming.'

(25) A: na t'ich-im lha Mary
RL swim-INTR DET Mary
' Mary swam.'

B: na u huy
RL Q finish
'Is she finished?'

(26) A: na lulum lha Mary
RL sing DET Mary
'Mary sang.'

B: na u huy
RL Q finish
'Is she finished?'

Furthermore, a perfective activity can be continued without inducing any contradiction, as shown by the examples below:

Event continuation

(27) a. na shupn lha Carrie iw'ayti na7-xw wa (shu-)shupn
RL whistle DET Carrie maybe RL-still IMPERF (REDUP-)whistle
'Carrie whistled, maybe she's still whistling.'

b. na kw'eyilsh lha Mary i na7-xw wa kw'eyilsh
RL dance DET Mary CONJ RL-still IMPERF dance
'Mary danced and she's still dancing.'

(28) a. na t'ich-im lha Mary
RL swim-INTR DET Mary
'Mary swam.'

b. na7-xw u wa (t'-)t'ichim
RL-still Q IMPERF (REDUP)-swim
'Is she still swimming?'

These data, among others, are used to argue that Sḵwx̱wú7mesh activities do not have final points as part of their representations. In the next section, I turn to English activities and the absence of final points.

2.2.2. English activities[6]

English activity predicates have been described in the literature as having no culmination points, but instead are homogenous with identical sub-events. Perfective activities are often interpreted as terminated; that is, without any evidence to the contrary, a perfective activity event is understood as having stopped. Consider the examples below, where each of the events are understood as being over (i.e., in (a), we understand the sentence to suggest that we are no longer strolling in the park):

(29) a. We strolled in the park for an hour.

b. John laughed for 5 minutes.

c. The kitten chased the mouse.

However, given the relevant context, a perfective activity predicate can be continued without inducing infelicity, as illustrated by the examples below:

(30) a. Lily worked and continued working after that without a break.

b. The dancers rehearsed and kept on rehearsing.

(Smith 1999: 488, ex. 7a,b)

However, Smith suggests that perfective activity sentences are not compatible with assertions of simple continuation.[7] She provides evidence for this claim with the following examples:

[6] I restrict the discussion in this section to the event continuation diagnostic since in English *finish* is claimed to be incompatible with activities (see Smith, among others). See Chapter Two for further discussion.

(31) a. #Lily swam in the pond and she may still be swimming.
(Smith 1997: 67, ex. 11a)

b. #Lily worked and she may still be working.

c. #The dancers rehearsed and they may still be rehearsing.
(Smith 1999: 488, ex. 6a,b)

Although Smith suggests that the data illustrates that the "closed readings are based on the semantic meaning of simple aspect", she also claims that the "perfective imposes an implicit bound [on activity predicates], but the event need not actually terminate" (1997: 67). In other words, for Smith this test reveals something about the nature of the perfective, and not necessarily about the nature of the predicates themselves.

The results of fieldwork with non-linguist native English speakers show that their judgements differ from those given for Smith's two sets of sentences above. Six speakers were involved in this part of the study; 2/3 of the speakers found Smith's felicitous sentences infelicitous and 2/3 or more of the speakers found Smith's infelicitous sentences felicitous. The results are shown below:[8]

(32) *English results: based on Smith's sentences*

	Smith's results	✓	#
a. Lily worked and continued working after that without a break.	✓	2	4
b. The dancers rehearsed and kept on rehearsing.	✓	2	4
c. Lily swam in the pond and she may still be swimming.	#	4	2
d. Lily worked and she may still be working.	#	5	1
e. The dancers rehearsed and they may still be rehearsing.	#	4	2

[7] I am not sure what Smith means here by "simple continuations". The impression is that they do not in her terms, introduce a new unit of activity. However, it is not clear how sentences with "still" do not introduce new units of activity, but sentences with "kept on" do. If the modal "may" is removed from the sentences in (31), there really does not seem to be any contrast with the two sets of sentences.

[8] With respect to Smith's infelicitous examples above, it should be noted that at least one speaker who rejected these sentences rejected all of these types of sentences (that is any continuation of an activity predicate that has first been given in the perfective – both of Smith's data sets).

Regarding the sentences in (a) and (b), the speakers that rejected the sentences provided the following comments:

(33) a. # Lily worked and continued working after that without a break.
Speaker's comments: "Both the first half and the second half of this sentence sounds wrong... 'worked and continued working' seems redundant.... 'after that without a break' begs the question 'after what?'"

b. # The dancers rehearsed and kept on rehearsing.
Speaker's comments: "Seems redundant; they have either finished rehearsing or they are still rehearsing"

(34) a. # Lily worked and continued working after that without a break.
Speaker's comments: "You didn't define the time 'Lily worked until five and continued working...' or "Lily worked and continued working without a break"[9]

b. # The dancers rehearsed and kept on rehearsing.
Speaker's comments: "Something sounds wrong...maybe you could say 'The dancers rehearsed and rehearsed"

(35) a. # Lily worked and continued working after that without a break.
Speaker's comments: "I'd rather it say: Lily has been working continuously or Lily has been working without a break or Lily continues to work without a break"

b. # The dancers rehearsed and kept on rehearsing.
Speaker's comments: "If they kept on rehearsing, the first part seems moot. How about: The dancers rehearsed and rehearsed or the dancers kept rehearsing?"

There could be a number of possible factors affecting the judgements here. It might be the case that indeed a specific time frame is required, in which case, sentences such as the following are expected to be judged felicitous:

(36) Lily worked for an hour and then continued working without a break.

[9] It may be the case that "after that" is what is causing the infelicity here.

Furthermore, these sentences were presented out of the blue so it may also be the case that speakers are treating some of these predicates as accomplishment-like (*rehearse a play*, for example), which may account for their infelicity. It may be the case that tense plays a role here; that is, the tense of the first clause is past, while the tense of the second clause is present (utterance time), which may be causing a problem; one speaker's comments alluding to this are given below:

(37) #Lily swam in the pond and she may still be swimming.
Speaker's comments: "Sounds wrong...Lily went swimming in the pond...because swam is the past tense...you are using past tense and the present tense together"

Note, however, that this would not explain the results of the second data set. Finally, the modality (*may*) introduced in the second set of data in (c-e) seems to have an effect on the judgements of these sentences; that is, the modality seems to improve the sentence for speakers (when asked to compare them to sentences without modals. This is illustrated by the speaker's comments given below:

(38) Lily swam in the pond and she may still be swimming.
Speaker's comments: "Sounds alright, like the second part is better here because of the may*"*

(39) The dancers rehearsed and they may still be rehearsing.
Speaker's comments: "It just seems like there is something wrong with it, but it is better than the other one [without may*]"*

To address some of these possible factors, and to try to decipher whether or not indeed they were affecting the judgements given by speakers, I elicited some additional sentences.[10] These sentences were chosen to attempt to uncover whether a time frame (as alluded to above) has an effect on the interpretation of the sentence (a-c) and whether modality has an effect on the interpretation of the sentence (d-f). The following table contains the additional sentences that were examined and their results:[11]

[10] This is obviously not a complete study, but is meant only to get a sense of the facts.
[11] The sentences were not elicited in this order, but were grouped with the others by predicates.

(40) *English results: Additional sentences*

	✓	#
a. Lily swam in the pond for an hour and she may still be swimming.	4	2
b. Lily worked for an hour and she may still be working.	5	1
c. The dancers rehearsed for an hour and they may still be rehearsing.	5	1
d. Lily swam in the pond and she is still swimming.	2	4
e. Lily worked and she is still working.	3	3
f. The dancers rehearsed and they are still rehearsing.	2	4

These results seem to point to the fact that sentences consisting of a perfective activity and a clause that continues the event as well as containing a modal such as *may* are more acceptable for speakers than those without a modal.[12] Furthermore, it is possible that sentences such as these that assert a time frame overtly are more acceptable that those that do not. Although this study is limited in scope, some tentative conclusions can be drawn from it. For most speakers in this study, perfective activities in English can be continued without inducing a contradiction. Clearly there are factors that affect these judgements, but the data in (a-c) in the above table and in (c-e) in the previous table do show that these sentences are possible for the most of the speakers. While these facts are not exactly consistent with Smith's data, I make the same claim as she does, namely, that the event denoted by perfective activities in English can be continued (even if it turns out it is under special circumstances). Thus, although English activities can terminate, they have no final point specified in their meaning; rather, the final point of an activity is a sub-event that has no sub-event that follows. It remains to be explained why some speakers reject all of these sentences, and whether there are other factors that affect judgement of these types of sentences.

[12] Since the sentences were elicited in sentences grouped by predicate (that is, variations of sentences containing the same predicate), it may be the case that the results for the non-modal sentences are skewed given that speakers may have been comparing them, as shown by the comments in the previous data.

2.2.3. Summary: final points

A summary of the results of the event continuation diagnostic for English and Sḵwx̱wú7mesh activities are compared in the chart below:

(41) *English and Sḵwx̱wú7mesh Activities: event continuation*

	Event Continuation
Sḵwx̱wú7mesh	✓
English	✓

The Sḵwx̱wú7mesh facts clearly indicate that perfective activities can be continued without inducing any contradiction. While there are extra factors that affect the generalizations about English, I conclude here that, setting aside modality, English perfective activities can also be continued without inducing a contradiction. In the following section I analyze the English data in parallel with the proposals for Sḵwx̱wú7mesh.

2.3. English activities have initial points

A summary of Sḵwx̱wú7mesh and English activity predicates is given in the chart below:

(42) *English and Sḵwx̱wú7mesh Activities*

	Punctual Clauses				**Event Continuation**
	Inceptive	**Term.**	**In prog.**	**Instant.**	
Sḵwx̱wú7mesh	✓	×	×	✓(?)	✓
English	✓	×	×	✓	✓

I argued in Chapter Three that Sḵwx̱wú7mesh activities have initial points, but lack final points in their representations. The proposed template is given again below:

(43) *Sḵwx̱wú7mesh Activities*

$\lambda e.\exists e_1 \exists e_2 [e =^{s} (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$

The initial point is represented as an initial BECOME sub-event. The question is then, given that English activities behave the same as Sḵwx̱wú7mesh with respect to punctual clauses, do English activities also have initial points as part of their representations?[13] The Sḵwx̱wú7mesh facts rely on another test as well, namely the effect of the auxiliary *mi* on predicates in Sḵwx̱wú7mesh (since this is a language-internal test, it does not directly carry over to English). I argue that English activities are just like Sḵwx̱wú7mesh activities in that both have initial points and neither have final points in their representations. This analysis supports Smith's informal description of activities (and accomplishments, to be dealt with in the following section) as having natural initial points; moreover, it straightforwardly accounts for facts that would otherwise be left for stipulation. Thus, I propose the following template for English activities.

(44) *Sḵwx̱wú7mesh /English Activities*

$\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$

As in Sḵwx̱wú7mesh, a shift operation will be necessary in order to explain how the punctual clause targets the initial point of the activity. Recall the shift analysis of Sḵwx̱wú7mesh activities modified by punctual clauses presented in Chapter Three:

(45) a. SHIFT $(\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]) \rightarrow$
$= \lambda e.(\text{BECOME}\ (P))(e)$

b. SHIFT $(\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (\text{START-SING}(e_1) \wedge (\text{SING})(e_2)]) \rightarrow$
$= \lambda e.\text{START-SING}(e)$

This analysis then accounts for how punctual clauses induce inceptive readings for both English and Sḵwx̱wú7mesh activities.

I propose that punctual events yield inceptive readings when they modify predicates with minimal punctual events. The relevant definitions are repeated below:

[13] As noted in Chapter One, Smith (1997: 22) suggests that indeed this is the case, but does not provide a formal analysis.

(46) *Minimal Event*

A Minimal Event is an event that has no smaller events (no sub-events):
a. BECOME(P) has no sub-events (and therefore can be a minimal event)
b. DO(P) has sub-events (and therefore cannot be a minimal event)

(47) *Punctual Event*

A punctual event is an event that is temporally located at a particular point in time.

Both English and Sḵwx̱wú7mesh activities have minimal punctual events, by these definitions, since they both have initial BECOME sub-events.

However, I must also be able to account for the fact that punctual clauses induce instantaneous readings of English activities and the possibility that it may also induce instantaneous readings of Sḵwx̱wú7mesh activities.[14] To address this issue, I appeal to the notion of a maximal event, which I define below:

(48) *Maximal Event*

A Maximal Event is an event that is not a sub-event of any larger event
a. For any event that has more than one sub-event, the maximal event must contain all sub-events.

The maximal event of an activity in either English or Sḵwx̱wú7mesh must be the entire (maximal) event. It is clear from the data that punctual clauses can induce instantaneous readings of English activities. I thus claims that a punctual clause can target the minimal punctual event or the maximal event of an English activity. The Sḵwx̱wú7mesh data with respect to the instantaneous reading is still undetermined. If it turns out with additional data that punctual clauses also systematically induce instantaneous readings of Sḵwx̱wú7mesh activities, I argue that punctual clauses can target the minimal punctual event, or the maximal event of a Sḵwx̱wú7mesh activity as well. If, however, this does not turn out to be the case and punctual clauses induce only inceptive readings of Sḵwx̱wú7mesh activities, I am left to argue that English and Sḵwx̱wú7mesh differ in this way; in other words, that Sḵwx̱wú7mesh

[14] I follow Rothstein (2004) in assuming that activities can have both semelfactive and non-semelfactive uses and that these uses are dependent on which events are lexically accessible.

punctual clauses can only target the minimal punctual event of a Sḵwx̱wú7mesh activity. I expect the former to be the case.

There is one final issue to raise here: what is the representation of a semelfactive activity? In other words, is this type of event itself punctual, or is it a shifted reading where the activity is shifted to a DO event that has only a single atomic set in its denotation.

3. Accomplishments

In this section, I examine initial points and final points of accomplishments in both Sḵwx̱wú7mesh and English. I argued in Chapter Three that Sḵwx̱wú7mesh accomplishments do not have initial points, based on two diagnostics; the results of the punctual clause test showed accomplishments are not restricted to inceptive readings when modified by punctual clauses. I argue here that English accomplishments can also be claimed to lack initial points as they do not seem to have inceptive readings when modified by punctual clauses (except in special contexts), but a preferred instantaneous reading, if they are accepted at all. I do, however, discuss the possibility of English accomplishments having initial points and how it would account for some inceptive readings.

I showed in Chapter Two that based on four diagnostics, Sḵwx̱wú7mesh accomplishments have no final points, but instead have culmination implicatures. The results of two of the tests showed that accomplishments can be continued and their final points can be cancelled without inducing contradictions. In this section I show that, although there are mixed results reported for English accomplishments in the same contexts, the results of this study point to the fact that English accomplishments indeed have final points. There is thus a clear contrast between the representations of English and Sḵwx̱wú7mesh accomplishments. I begin by looking at initial points.

3.1. Initial points: punctual clauses

3.1.1. Sḵwx̱wú7mesh accomplishments

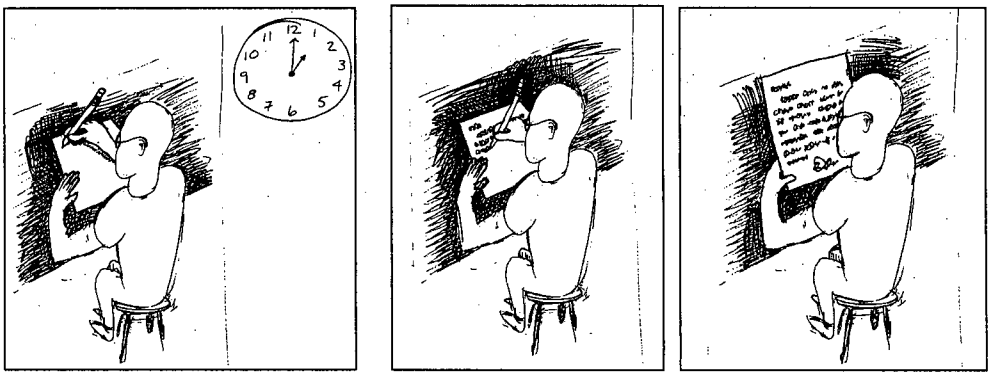
Recall from Chapter Two that Sḵwx̱wú7mesh accomplishments are not limited to inceptive readings when modified by a punctual clause; rather, these sentences are judged felicitous in a variety of contexts. An example where each of the three contexts (initial, medial and final) is appropriate is repeated again below (recall from Chapter Three that not all predicates are

accepted by all speakers in every possible context). The inceptive context is one where John begins to write (no words on the page yet, but he has the pen in hand). The medial context is one where John is part-way through writing (half the page is written and he is still holding the pen). The final context is one where the letter is completely written (the page is full, John is no longer holding the pen, but instead holding a completed letter):

(49) na **xel'-t**-as ta sxwexwiy'am kwa John
RL **write-TR**-3ERG DET story DET John
na7 t-kwi an'us-k
LOC OBL-DET two-o'clock

'John wrote the story at two o'clock.'

✓Context: inceptive ✓Context: medial: ✓Context: final



Based on data such as these (as well as data involving the Skwxwú7mesh morpheme *mi*) I argued in Chapter Three that Skwxwú7mesh accomplishments, unlike activities, do not have an initial point in their representation (recall that they do have a culmination implicature, which I discuss again below):

(50) *Accomplishments*

λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]

To explain why it is the case that any of the possible intervals (initial, medial, final) of the accomplishment can be targeted by the punctual clause, I suggested that all the sub-events of the predicate are identical; thus, only the most salient point for the speaker will be targeted

by the punctual clause. In some cases, more than one sub-event may be salient (as the example above shows).

In the following section I examine parallel examples from English.

3.1.2. English accomplishments

There is a disagreement in the literature with respect to the readings for accomplishments modified by punctual clauses/adverbials in English. As a result, this is the area where data from naive speakers may be most valuable. Recall from Chapter Three that in comparing activities and accomplishments, Rothstein (2004) suggests that activities yield inceptive readings with punctual clauses/adverbials, whereas accomplishments do not:

(51) a. John ran at 9 p.m. (=John began to run at 9pm) (Rothstein 2004: 25, ex. 41c)

b. #Mary painted a picture at midnight. (Rothstein 2004: 25, ex. 41e)

Rothstein appeals to the notion of "privileged point" to account for the contrast in the above data; that is, she suggests that "when an activity occurs with a punctual adverb, the effect is to assert that the activity **began** at the temporal point given, presumably since this is the only privileged instantaneous event available...Accomplishments do not have even this reading" (p. 25). This however, does not explain why the reading is unavailable for accomplishments, though seems to imply that they do not have a privileged instantaneous event available.

Recall also that Bertinetto (2001) also shows that accomplishments modified by punctual clauses are unnatural; however he suggests that the punctual clauses picks out either the initial or final point of the event. Bertinetto states that sentences such as these can "at most indicate (depending on the situation) the initial or final boundary of the event" (p. 179):[15]

(52) ??John wrote his dissertation at 5 o'clock last Tuesday.

[15] This contrasts with judgements by other English native speakers.

Terry (2004) suggests only events that could "reasonably occur during a very short period of time" are possible answers to a question that provides the punctual clause. The relevant examples are given below:

(53) What happened while Esther was entering the room?

a. ? Eugene ate the cake.

b. ?? Eugene wrote his dissertation.

(Terry 2004: 77; ex. 79d-e)

As Terry notes, (a) forces an instantaneous interpretation where Eugene ate an entire cake while Esther was opening the door and walking into the room. He states further that it "cannot mean that Eugene started eating, finished eating, or continued eating the cake. The entire cake-eating event must be contained within the topic time". (p. 77). As for the sentence in (b), again, forces the instantaneous reading, rendering the in progress or inceptive readings impossible. The judgements reported in this study seem to cover the same spectrum.

As aforementioned, this study involved eliciting judgements from seven speakers based on a questionnaire and a sub-set of the questions contained in the questionnaire were elicited from two other speakers in one-on-one sessions. This part of the study involved eliciting the judgements of five sentences that consisted of perfective English accomplishments modified by a punctual adverb. The sentences and the results from the speakers are listed in the chart below

(54) *English accomplishments + punctual adverb: results*[16]

		✓	#
a.	Mary wove a blanket at one pm.	4	3
b.	Mary fixed the car at one pm.	7	0
c.	Mary built a house at one pm.	0	7
d.	Mary read a book at one pm.	2	5
e.	Mary ate an apple at one pm.	7	0

[16] This part of the study did not include punctual clauses but punctual adverbs. The attempt was to avoid the other factors that may affect judgements (e.g., the fact that a punctual clause such as "...when John arrived" creates a context larger than an instant, but potentially the state after the arrival).

From these results it is obvious that the judgements are mixed, not only across speakers, but within speakers as well. Furthermore, the judgements given by speakers do not systematically match up to the comments they gave; in other words, the comments sometimes indicate the exact opposite judgement. Thus, although the numbers may indicate a certain level of acceptability, it is the comments that the speaker's provide that I take to be far more telling about the felicity and possible interpretations of these sentences. Prior to examining the judgements that speakers gave for the three contexts (inceptive, culminating, instantaneous), let us first look at some of the speaker's initial comments on the out of the blue sentences.[17]

One speaker comments on the entire data set that "To me, 'at 1pm' means that this is when the activity occurred not when it finished occurring. To be more accurate, **the activity would have to be a very short one** or be followed by 'and she finished at'." (bolding is mine). Along the same lines, at least for some speakers, the ungrammaticality is due to the fact that an instantaneous reading is the most natural and some predicates simply do not allow for the instantaneous reading in the same way as others. This is illustrated via the speaker's comments, as shown below:

(55) # Mary read a book at 1pm.
Speaker's comments: " 'Was reading' would be better, can't read a whole book at 1pm"

For others, it may not be an instantaneous reading that is induced, but at least near-instantaneous, and the event has to end soon after, as illustrated by the contrasting comments in the data below:

(56) a. Mary wove a blanket at 1pm.
b. Mary fixed the car at 1pm.
Speaker's comments: "A & b sound ok because the activity shouldn't take much time to complete"

[17] I did not test the medial context with all speakers.

c. Mary built a house at 1pm.
Speaker's comments: "Sounds odd because you get the impression that Mary has super speed and has started to build a house and finished it in an afternoon which isn't likely. If the time period had been longer like Mary built a house last year *it would sound OK"*

For the speakers not included in the results in the above chart, again, their initial reactions were that the event was instantaneous, as illustrated by the volunteered comments for the out of the blue sentences below:

(57) # Mary wove a blanket at 1pm.
Speaker's comments: "Sounds like she wove the entire blanket at 1 (until 1:01)"

(58) # Mary wove a blanket at 1pm.
Speaker's comments: "Awkward – weaving cannot be done in that minute, implies for that one minute she wove a blanket – would have to be a really small blanket"

I argue that these data show that these sentences are interpreted primarily as instantaneous events; whether or not they are judged felicitous may be dependent on whether the speaker considers the event one that can easily occur instantaneously.

As with the activities, in the next part of the questionnaire, the speakers are asked to consider three different contexts and judge the sentence in those contexts. In some cases, the felicity judgements do not match with the respective speaker's comments. Given the fact that providing these types of subtle judgements can be a difficult task for an inexperienced consultant, I take into account each speaker's comments in regards to the sentences when drawing conclusions from the data.

For half the speakers, each of the sentences containing a perfective accomplishment modified by a punctual adverb is felicitous in an instantaneous context, while the remaining speakers accept the sentence in instantaneous contexts that they deem possible. For example, one speaker who judges each of the sentences felicitous in the instantaneous context comments that for a variety of them, the sentence "implies *all at once*, though it is impossible" (in regards to sentences a-c). Two speakers judged only two of the sentences felicitous in instantaneous contexts; it appears that not only are these events that the speakers can imagine an appropriate instantaneous context, but, as the comments in (b) below suggest, "all at once" can mean longer than an instant for that speaker:

(59) a. Mary fixed the car at 1pm.
Speaker's comments: "Could simply be a loose bolt to tighten"

b. Mary ate an apple at 1pm.
Speaker's comments: "Although it might actually take 10-15 minutes to eat it, the task seems *to be small enough for the sentence to support it"*

(60) a. Mary fixed the car at 1pm.
Speaker's comments: "If something small needed fixing, it could be done all at once"

b. Mary ate an apple at 1pm.
Speaker's comments: "Doesn't take long to eat an apple"

Three of the speakers judged the following sentence felicitous is all three contexts (inceptive, culminating and instantaneous), though it seems that the inceptive and culminating judgements are a result of the instantaneous reading; that is, since the event happened "all at once", it must have started and finished at that time as well:

(61) Mary ate an apple at 1pm.
Speaker's comments: "Eating an apple takes so little time that I think all three cases [initial, final and instantaneous] apply"

Three speakers judge each of the sentences felicitous in inceptive contexts. Of those speakers, two of them judge each of the sentences felicitous in instantaneous contexts as well. For two of these speakers, it seems that the inceptive reading is available only for events that do not take too much time. One speaker indicates this when they he responds that the sentence *Mary read a book at 1pm* would **not** be felicitous in a context where Mary started reading the book at 1pm and finished at 5pm. The following comments from a different speaker suggest the same things:[18]

[18] This intuition was noted by a WSCLA 10 audience member who suggested that (i) is more available than (ii) since the event in (i) could be completed in a short time, while the event in (ii) could not:
(i) Mary wrote a letter at 1pm
(ii) Mary built a house a 1pm.

(62) Mary built a house at 1pm.
Speaker's comments: [Regarding inceptive and culminating contexts] "Only if the house was made of cards or lego, otherwise no"

I can speculate that this is possibly due to the fact that "at 1pm" may indicate something more than an instant, but an entire hour, for example.

For other speakers, the inceptive and culminating contexts were not at all possible for these sentences, and they volunteered corrected sentences that would be appropriate in those cases, as illustrated by the comments below:

(63) a. Mary wove a blanket at 1pm.
Speaker's comments: [Regarding culminating context] "You would have to say until 1pm*; it gives a time that she stopped weaving"; [regarding inceptive context] "sounds awkward – need to mark that she started or finished because it takes place over time"*

b. Mary read a book at 1pm.
Speaker's comments: [Could she have started...finished...or be in the middle at 1pm] "It's an activity that takes time...you would have to say either Mary finished/started reading at 1pm *or* Mary was reading at 1pm"

(64) Mary wove a blanket at 1pm.
Speaker's comments: [Regarding inceptive context] "No...you would have to say began to weave"

Recall that not all speakers were asked whether the in progress reading is available for perfective accomplishments modified by punctual adverbs. However, those that were asked clearly did not allow the in progress reading. This is illustrated by the comments given below:

(65) Mary wove a blanket at 1pm.
Speaker's comments: [Could Mary be in the middle of it at 1pm?] "No, then you would say was weaving"

(66) Mary wove a blanket at 1pm.
Speaker's comments: [Could she have been doing it all day, then I ask what did she do at 1pm?] "You would have to say was weaving"

Finally, one WSCLA 10 audience member suggests that the inceptive reading of perfective accomplishments modified by punctual clauses seems to be available in a "list" context. For example, the sentence in (b) below is an appropriate answer to the question in (a):[19]

(67) a. What did you do yesterday?

b. I wrote a letter at 1, washed the car at 3, I cooked dinner at 5...

3.1.3. Summary: initial points

Although the facts that emerge from this section of the English study are not entirely consistent, they do point to some generalizations that are summarized in the chart below (the "(?)" indicates that the generalization is less concrete than the others, while the "?" indicates that the facts are not available):

(68) *Accomplishments + punctual clauses: English and Skwxwú7mesh compared*

	Inceptive	Culminating	Instantaneous	In Progress
English	×(?)	×(?)	✓	×
Skwxwú7mesh	✓	✓	?	✓

Unfortunately, no data on the instantaneous reading of Skwxwú7mesh perfective accomplishments were elicited. It is clear, however, given the variety of data shown in Chapter Two, that the instantaneous reading is not a preferred reading for any of these Skwxwú7mesh sentences.

I argue that what can clearly be said based on these results is that Skwxwú7mesh and English sentences of this type differ in that Skwxwú7mesh speakers judge all sentences of this type felicitous without any need for extra context, while English speakers do not. Furthermore, the preferred reading for English here is instantaneous, while this is not the case for Skwxwú7mesh. Finally, where English seems to require some specialized contexts to make these sentences felicitous, Skwxwú7mesh has no such requirement.

[19] It might be the case that these sentences are being coerced into atelic predicates; it would be crucial to verify whether or not these events have culmination entailments in this context.

In the next section I continue to examine perfective accomplishments in English, but with particular attention to final point diagnostics, namely culmination cancellation and event continuation.

3.2 Final points: culmination cancellation and event continuation

3.2.1. Skwxwú7mesh accomplishments

As we did for Skwxwú7mesh, this English study looks at two types of sentences that demonstrate whether or not a perfective predicate entails completion: culmination cancellation and event continuation. Recall that in Chapter Two I showed that in Skwxwú7mesh, sentences of both these types are completely grammatical for accomplishments; some examples are given again below:

(69) *Culmination Cancellation*

na	p'ayak-ant-as	ta	John	ta	snexwilh-s
RL	fix-TR-3ERG	DET	John	DET	canoe-3POSS

welh	haw	k-as	i	huy-nexw-as
CONJ	NEG	IRR-3CNJ	PART	finish-TR(LC)-3

'He fixed his canoe but he didn't finish (fixing) it.'

(70) a.

na	kw'el-t-as	kwi	smeyts	kwa	John
RL	cook-TR-3ERG	DET	meat	DET	John

'John cooked the meat.'

b.

na	u	huy-nexw-as
RL	Q	finish-TR(LC)-3ERG

'Did he finish?'

(71) *Event Continuation*

na	xel'-t-as	ta	sxwexwiy'am'	lha	Mary
RL	write-TR-3ERG	DET	story	DET	Mary

iw'ayti	na7-xw	wa	xel'-t-as	
maybe	RL-still	IMPERF	write-TR-3	

'Mary wrote a story. Maybe she's still writing it.'

(72) a. na kw'el-t-as kwi smeyts kwa John
RL cook-TR-3ERG DET meat DET John
'John cooked meat.'

b. na u men wa we7u wa kw'el-t-as
RL Q just IMPERF continue IMPERF cook-TR-3ERG
'Is he still cooking it?'

In the following section I examine these types of sentences in English.

3.2.2. English accomplishments

Sentences such as these have been discussed in the literature about English. Smith illustrates that perfective accomplishments are incompatible with what she calls assertions that the situation terminated without completion, as shown in the examples below:

(73) *Culmination cancellation*

a. #Mrs. Ramsey wrote a letter, but she didn't finish writing it.

b. #James fixed the clock, but he didn't finish fixing it.
(Smith 1997: 68, ex. (12a-b))

c. #Mary walked to school but she didn't actually get there.
(Smith 1997: 64, ex. 4a)

Smith further shows that perfective accomplishments are incompatible with assertions that the situation continues, as shown in the examples below:

(74) *Event Continuation*

a. #Mrs. Ramsey wrote a letter and she may still be writing it.
(Smith 1997: 67, ex. (11))

b. #Donald fixed the clock and he is still fixing it.
(Smith 1999: 487, ex. (3a))

c. #Mary walked to school and she's still walking.
(Smith 1997: 64, ex. 4b)

d. i. Martin walked to school.
ii. #Did he get there?
(Smith 1997: 65, ex. 8a,c)

Smith contrasts these examples with imperfective accomplishments where both types of sentences (culmination cancellation and event continuation) are felicitous, as shown below:

(75) a. Mary was walking to school but she didn't actually get there.

b. Mary was walking to school and she's still walking.

(Smith 1997: 64, ex. 3a-b)

Some native English speaking audience members at a presentation that included these data suggested that some of these sentences are felicitous. Furthermore, anonymous abstract reviewers also suggested that these sentences are all felicitous. Kratzer (2004) suggests that a number of English verbs have telic/atelic alternations in that they are felicitous with both *in an hour* and *for an hour*, phrases which has been argued to only be felicitous with telic (e.g. accomplishments) and atelic (e.g., activities) predicates, respectively. The list is given below:

(76) read, examine, analyze, barbecue, roast, iron, bathe, massage, wash, comb, brush, fry, polish, explain, confuse, pollute, control, cover, insulate, test, decorate, describe, drain, mop, survey, check,...

(Krazter 2004:396, ex. 10)

Of the predicates examined in this study, at least one (*read*) is included on Kratzer's list, and possibly others (as the list is not exhaustive). As Kratzer points out, it has been argued that in Japanese, every activity has a telic interpretation (McClure 1995). McClure suggests that in English, the class of accomplishments is not well-motivated since "there does not seem to be any accomplishment behaviour which cannot be reduced to that of an activity or achievement. I therefore treat accomplishment behaviour not as a separate aspectual type but as one kind of aspectual ambiguity" (p. 59). While the details are beyond the scope of this discussion here, it is worth pointing out that this would suggest that accomplishments and activities would neutralize in the contexts I am addressing here.

Speakers in this part of the study were presented with sentences that involved both the culmination cancellation and event continuation diagnostics, relative to perfective accomplishments, and asked to evaluate their felicity. I attempted to provide a mixture of accomplishment predicates: creation predicates (e.g., *weave*), predicates that take some time to complete (e.g., *build*), and predicates that Rothstein suggests "consist of the repetition of a

single kind of event" (e.g., *read*) rather than "a series of associated events" (e.g., *build*) (p. 114-5). Rothstein suggests that "it will be easier to derive activities derived from accomplishments when the activity part of the accomplishment is a simple repetition of a single event type, rather than a complex activity" (p. 115).

The sentences and the numerical results are given in the two charts below. The figures are very misleading in that they do not correspond to the comments submitted by speakers; that is, the speaker's comments and their evaluation of the sentences do not systematically match as many speakers judge a sentence felicitous, but then comment that the sentence would have to be changed. Although I believe these judgements to be infelicitous ones, I include this list of results here in order to draw attention to the possible problems with relying on felicity judgements alone:

(77) *English Accomplishments: culmination cancellation, event continuation*

		✓	#
a.	Mary wove a blanket (last year) but didn't finish it.	3	4
a'.	Mary wove a blanket (last year) and is still weaving it.	0	7
b.	Mary fixed the car (last week) but didn't finish it.	1	6
b'.	Mary fixed the car (last week) and is still fixing it.	2	5
c.	Mary built a house (last year) but didn't finish it.	3	4
c'.	Mary built a house (last year) and is still building it.	1	6
d.	Mary read a book (last night) but didn't finish it.	4	3
d'.	Mary read a book (last night) and is still reading it.	3	4
e.	Mary ate an apple (yesterday) but didn't finish it.	4	3
e'.	Mary ate an apple (yesterday) and is still eating it.	2	5

(78) *English Accomplishments: culmination cancellation, event continuation*

	✓	#
Mary wove a blanket.		
a. Did she finish it?	4	3
a'. Is she still weaving it?	1	6
Mary fixed the car.		
b. Did she finish?	3	4
b'. Is she still fixing it?	0	7
Mary built a house.		
c. Did she finish it?	4	3
c'. Is she still building it?	1	6
Mary read a book.		
d. Did she finish it?	5	2
d'. Is she still reading it?	2	5
Mary ate an apple.		
e. Did she finish it?	4	3
e'. Is she still eating it?	0	7

Five of the speakers overtly comment that the sentences in (77) sound like contradictions. One speaker who judged all the sentences infelicitous comments that it "sounds like the act was completed in first part of sentence but still going on in second part". Another speakers notes for many of the sentences that the "[past/perfective form of the predicate] implies that she finished it". Another speaker who judges all the sentences infelicitous suggests for a number of them that "[wove/fixed/ate] intimates completion". Some more comments on specific sentences are given below:

(79) Mary wove a blanket (last year) and is still weaving it.
Speaker's comments: "Saying that she wove a blanket means she completed it so how could she still be weaving it"

(80) Mary fixed the car (last week) but didn't finish fixing it.
Speaker's comments: "Sounds contradictory"

(81) Mary fixed the car (last week) but didn't finish fixing it.
Speaker's comments: "Sounds like an impossibility – car can't be fixed if still fixing it"

Three speakers volunteer that the sentences in (77) would be felicitous if they included "started to" as part of the perfective predicate. One speaker who judged all the

prime sentences infelicitous commented that they thought "the [non-prime sentences] made sense, but I thought it should say *Mary started reading a book...but didn't finish it.*". Similar comments were given by other speakers, as illustrated below:

(82) a. # Mary wove a blanket (last year) but didn't finish it.
Speaker's comments: "Sounds strange, but I think the sentence is basically wrong because you can't say she didn't finish the blanket...a more correct way to say it is that "Mary started..."

b. # Mary read a book (last night) but didn't finish it.
Speaker's comments: "You would say Mary started reading a book..."

c. # Mary read a book (last night) and is still reading it.
Speaker's comments: "No.. you'd have to put started to"

(83) Mary fixed the car (last week) but didn't finish.
Speaker's comment: "Mary started fixing the car. . ."

This suggests that at least these speakers do not allow an inceptive reading of perfective accomplishments in English and that the inception must be stated overtly.

Two speakers volunteer that the sentences in (77) would be felicitous if the predicate was in a past progressive form.

(84) # Mary wove a blanket (last year) but didn't finish.
Speaker's comments: "'wove' implies that she finished it, 'was weaving' would be more appropriate"

(85) a. # Mary read a book (last night) but didn't finish it.
Speaker's comments: "Sounds better if 'was reading'"

b. # Mary built a house (last year) but didn't finish it.
Speaker's comments: "Feels like it should say-was building"

These comments suggest also that these speakers do not allow an in progress reading of perfective accomplishments; if they did, I would expect them to be judged felicitous.[20]

[20] These speakers were not among those that were asked about the in progress reading with punctual clauses (discussed in the previous section).

To correct one of the sentences in (77), one speaker volunteers using a different predicate *worked on* (which interestingly is an activity), rather than *fixed*, as illustrated below:

(86) Mary fixed the car (last week) and is still fixing it.
Speaker's comments: "The word fix does seems to connote a completed process in my mind so I'd probably say Mary worked on the car *to indicate she hadn't finished yet".*

In even other cases, speakers seem to create a context where the sentence might be felicitous; for example, one speaker suggests that the only way for the following sentence to be felicitous is to assume that the event must have occurred again. This is shown in the comments below:

(87) Mary fixed the car (last week) and is still fixing it.
Speaker's comments: "Makes me think that the car <u>was</u> fixed but keeps breaking down"

I take data such as this to illustrate the perfective accomplishment entails completion, so in order to prevent this sentence from being a contradiction, at least a second event must have occurred. It might not be expected to be possible for each of the predicates used in the study (e.g., eat an apple, or build a house), given that they would require an additional assumption that the apple was regurgitated, or that the house was taken down and rebuilt.

Similar facts are observed for the data in (78) above (involving questions). Speakers' comments illustrate that for them the sentences are contradictory; two speakers note of all the sentences that "past tense implies that she is finished". Other speakers' comments regarding this issue are shown below:

(88) a. Mary wove a blanket.
Q: Did she finish it?
Q: Is she still weaving it?
Speaker's comments: "Sounds strange...because when you say wove a blanket it means she finished, so why would you have to ask whether she finished it"

b. Mary fixed the car.
Q: Did she finish it?
Q: Is she still fixing it?
Speaker's comments: "When you say she fixed the car, it means that it's fixed"

c. Mary built a house.
Q: Did she finish it?
Q: Is she still building it?
Speaker's comments: "You said she built it already"

d. Mary read a book.
Q: Did she finish it?
Q: Is she still reading it?
Speaker's comments: "She did finish it, so there would be no reason to ask"

e. Mary ate an apple.
Q: Did she finish it?
Q: Is she still eating it?
Speaker's comments: "No...she already finished it"

(89) a. Mary fixed the car.
Q: Did she finish it?
Q: Is she still fixing it?
Speaker's comments: "The statement seems very final. The car is fixed so therefore the activity is done so why would you ask more questions".

Three speakers volunteer the past progressive:

(90) Mary read a book last night.
Q: Did she finish it?
Speaker's comments: "No it's still wrong, because you said she finished it...Mary was reading a book last night,. then you could ask whether she finished it"

(91) Mary read a book last night.
Q: is she still reading it?
Speaker's comments: "I would say was reading"

There are two remaining issues that the data in both (77) and (78) above raise. First, these data point to a possible contrast between the results of culmination cancellation and event continuation diagnostics in English. A quick look at the numbers in the two data sets suggest that the sentences that involve the event continuation diagnostic are judged infelicitous more often that those that involve the culmination cancellation diagnostic. This

might suggest that English looks quite a bit like Thai in this way (according to Koenig and Muansuwan 2000; see Chapter Four for further discussion).[21] However, once some of the speaker comments are taken into account (along with the fact that the judgements in English are not consistent in the same way as Koenig and Muansuwan suggest the judgements are in Thai), something different might be concluded.

It may be the case that the additional factor of tense is affecting these judgements. Some speakers' comments suggest that the tense of the two clauses in all the x' examples above might be affecting the judgements; for example, one speaker notes of the question data in (78) that in regards to the a'-e' examples (which they judge infelicitous, leaving the a-e examples unmarked) "[b]ecause the statement is past tense, it doesn't make any sense to me that you would ask if she's still performing the action". Another example is shown below:

(92) # Mary wove a blanket (last year) and is still weaving it.
Speaker's comments: "Sounds like the act was completed in first part of sentence but still going on in second part"[22]

Further data would be necessary to conclude whether indeed tense is a factor as the same diagnostic can be used without changing the tense (e.g., Mary wove a blanket on Tuesday and was still weaving it on Thursday).[23] The point to reiterate here is that this is not the case for all speakers, as the data show.

Second, these data also point to a potential contrast suggested by Rothstein (2004), between predicates such as *read* or *eat* and predicates such as *build*, or *fix*. Recall that Rothstein suggests that "it will be easier to derive activities derived from accomplishments when the activity part of the accomplishment is a simple repetition of a single event type, rather than a complex activity". Based on this claim, predicates of the former type (those accomplishments whose activity portions involve simple repetition of a single event type) should behave more like activities in that sentences that consisted of perfective predicates

[21] Smith (1997) does not suggest this is the case for English. She reports data where both sets of sentences are infelicitous.
[22] This speaker judged the parallel culmination cancellation sentence felicitous (*Mary wove a blanket but didn't finish it*).
[23] It might also be the case that the numbers are skewed due to the fact that speakers might have been comparing the two parallel sentences to each other.

that involved culmination cancellation or event continutation would be judged felicitous (since activities have no final point and thus could not have a culmination entailment). Four of the seven speakers judged (77d) and (77e) (read and eat, respectively), felicitous. Five of seven speakers judged (78d) felicitous and four of seven speakers judged (78e) felicitous. Consider also the comments from the examples below:

(93) a. Mary read a book.
Q: Did she finish it?
Q: Is she still reading it?
Speaker's comments: "Seems less strange, but still is kinda"

b. Mary ate an apple.
Q: Did she finish it?
*Speaker's comments: "*Ate *doesn't tell you if she finished the apple, so this seems fine"*

Q: Is she still eating it?
*Speaker's comments: "*Ate *implies she's finished the action of eating, but not necessarily finished the fruit"*

(94) Mary ate an apple.
Q: Did she finish it?
Speaker's comments: "Seems ok because people frequently eat things but then don't eat the entire thing"

(95) a. Mary read a book (last night) but didn't finish it.
b. Mary read a book (last night) and is still reading it.

c. Mary ate an apple (yesterday) but didn't finish it.
d. Mary ate an apple (yesterday) and is still eating it.

(96) Mary read a book (last night) but didn't finish it.
Speaker's comments: "Without the brackets I infer that Mary's never coming back to that book, with the brackets I infer that she didn't finish reading the book in a night but that she will continue reading it"

Speakers may differ as to whether these predicates denote activities made up of a series of identical events, and those that consist of complex activities (e.g., whether or not they allow more than just identical events in the meaning). As not all speakers judged these sentences differently, this, in some sense, is exactly what is observed.

Pragmatics might have affected some of the judgements of the sentence in both sets of data in (77-78), as shown by the comments below:[24]

(97) a. # Mary ate an apple (yesterday) and is still eating it.
Speaker's comments: "Eating an apple is something fairly quick, unlike reading a book, it seems odd that she'd still be eating an apple from yesterday"

b. Mary built a house (last year) but didn't finish it.
b'. Mary built a house (last year) and is still building it.
Speaker's comments: "These sentences seems ok because we all know it takes way longer to build a house than fix a car or make a blanket.

c. Mary ate an apple.
Q: Is she still eating it?
Speaker's comments: "Seems weird because eating an apple shouldn't take much time so you'd assume she'd be done by now"

(98) Mary ate an apple.
Q: Did she finish it?
Q: Is she still eating it?
Speaker's comments: "Eating an apple doesn't take long"

(99) a. Mary read a book but didn't finish it.
Speaker's comments: "I have read books , but not cover to cover"

b. Mary fixed the car but didn't finish it.
Speaker's comments: "Process that is not complete, fixed seems to imply that she is done, but it depends on the context – Mary fixed the problem with the car but she didn't put all the parts back in. begs context but is not contradictory"

c. Mary ate an apple but didn't finish it.
Speaker's comments: "She ate enough, but maybe left a bite at the core"

3.2.3. Summary: final points

A comparison of the English and Sḵwx̱wú7mesh facts regarding culmination cancellation and event continuation of perfective accomplishments are summarized in the chart below:

[24] Tense again may be a factor for the speaker in the first set of examples.

(100) *Accomplishments: English and Sḵwx̱wú7mesh*

	Culmination Cancellation	Event Continuation
Sḵwx̱wú7mesh	✓	✓
English	×	×

As this chart shows, I am concluding from the data in this section that, although there are a variety of other issues raised by the data, the culmination of an English perfective accomplishments cannot be cancelled without contradiction, and the event denoted by a perfective English accomplishment cannot be continued without contradiction. This is quite different from Sḵwx̱wú7mesh where the exact opposite holds true. Again, while the choice of predicate might affect the judgement of English accomplishments, it is clear that this is not the case for Sḵwx̱wú7mesh as all predicates like the ones in the English study presented here are judged felicitous by Sḵwx̱wú7mesh speakers. I turn in the next section to the analysis of accomplishments in both languages.

3.3. English accomplishments have final points

A summary of the facts regarding English and Sḵwx̱wú7mesh accomplishments in all three diagnostics discussed in this section (punctual clauses, culmination cancellation and event continuation) is given in the chart below:

(101) *Accomplishments: English and Sḵwx̱wú7mesh*

	Punctual Clauses				Culmination Cancellation	Event Continuation
	Incept.	Culm.	Instant.	In prog.		
Sḵwx̱wú7mesh	✓	✓	?	✓	✓	✓
English	×(?)	×(?)	✓	×	×	×

Recall that accomplishments in Sḵwx̱wú7mesh have a culmination implication, not a culmination entailment; thus they have no final BECOME event built into their representation, as shown again below:

(102) *Sḵwx̱wú7mesh Accomplishments*

λe.[DO(P))(e) ∧ [∀w' [w' is an inertia world w.r.t. w at the beginning of e → [∃e' [culminates (e') in w' ∧ e causes e' in w']]]]]

This is meant to explain why (a) Sḵwx̱wú7mesh sentences containing perfective accomplishments are judged felicitous in both culmination cancellation contexts and event continuation contexts and (b) that Sḵwx̱wú7mesh perfective accomplishments do not yield ONLY inceptive readings with punctual clauses (recall that there is additional language-internal evidence that supports the representation above, but as it is either not comparable to English, or the facts in English are not controversial, I exclude them from this discussion; see Chapters Two and Three for details).

English perfective accomplishments do behave differently from Sḵwx̱wú7mesh perfective accomplishments in each diagnostic, thus their representations are expected to be different. Rothstein proposes the following template:

(103) *English accomplishments*

$\lambda e.\exists e_1 \exists e_2 [e =^{s} (e_1 \sqcup e_2) \wedge DO(P)(e_1) \wedge BECOME(P')(e_2)]$

English accomplishments have a culmination entailment (as evidenced by the results of the diagnostics in section 3.2.2), and their final point is represented as a final BECOME event above. However, recall from the discussion of Sḵwx̱wú7mesh and English activities that punctual clauses can target minimal punctual events. Applying this proposal to the template for accomplishments above, perfective accomplishments modified by punctual clauses in English should yield culminating readings. This is NOT what is observed; rather, sentences of this type have a preferred instantaneous reading.

I need to explain (a) why the final BECOME event of an English accomplishment is not a target for the punctual clauses and (b) why punctual clauses yield instantaneous readings of English perfective accomplishments. Preserving Dowty's (1979) intuition that the BECOME sub-event of accomplishments can take time, and thus is not the same as that of typically instantaneous changes of state (i.e. achievements), and following Rothstein's proposal that accomplishments include an incremental relation, results in the following (slightly simplified) representation of English accomplishments:

(104) $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (DO(P))(e_1) \wedge (BECOME(P'))(e_2) \wedge INCR(e_1,e_2,C(e_2)]$

(INCR = incremental relation)

I argue that since the final BECOME sub-event is part of that incremental relation, there is no punctual minimal event that is outside of that relation, thus, there is no minimal punctual event that the punctual clause can target. This would explain why punctual clauses do not induce culminating readings of perfective accomplishments.

However, I am still left to account for the instantaneous reading. To address this issue, I propose that punctual clauses target an English accomplishment's *maximal* event, and assume the following definition:

(105) *Maximal Event*

A Maximal Event is an event with no event larger than it
(i) For any event that has more than one sub-event, the maximal event must contain all sub-events.

English accomplishment predicates have complex structures with two sub-events, a DO event and a final BECOME event, as shown again below:

(106) $\lambda e.\exists e_1 \exists e_2[e=^s(e_1 \sqcup e_2) \wedge (DO(P))(e_1) \wedge (BECOME(P'))(e_2) \wedge INCR(e_1,e_2,C(e_2)]$

A maximal event of this type is the entire accomplishment (all sub-events included). As this chapter noted, perfective accomplishments modified by punctual clauses are judged infelicitous by a majority of speakers. This can now be explained given the fact that it is pragmatically odd for most accomplishment predicates as they typically are not located at a particular point in time, but take place over time.

There is a remaining issue regarding the possible inceptive reading of English perfective accomplishments modified by punctual clauses, which some speakers seems to allow under special contexts. I believe there are two possible avenues of explanation here: I could argue that English accomplishments indeed have initial points in their representations.

This would suggest a representation that had three sub-events: an initial BECOME event, a medial DO event and a final BECOME event. A possible representation is given below:

(107) $\lambda e.\exists e_1 \exists e_2 \exists e_3 [e =^s (e_1 \sqcup e_2 \sqcup e_3) \wedge (\text{BECOME}(P))(e_1)\ (\text{DO}(P))(e_2) \wedge (\text{BECOME}(P'))(e_3) \wedge \text{INCR}(e_2, e_3, C(e_3))]$

If this were the avenue of explanation I were to take, and if I assumed that the initial BECOME event would NOT be part of the incremental relation, I would be left with the task of explaining why for some speakers, the inceptive reading is impossible.[25]

The alternative is to suggest that English accomplishments do not have initial BECOME sub-events, but that certain contexts can trigger a shift operation (much like I propose for activities in both Sḵwx̱wú7mesh and English). However, this too would force us to account for how some contexts can trigger the shift and others cannot, as well as accounting for what type of predicate the accomplishment is shifting to.[26]

Finally, it remains to be explained why some English accomplishment predicates may permit culmination cancellation and event continuation. One possible account would be to follow Rothstein's (2004) analysis of accomplishments shifted to activities, which she too argues is not freely available for all accomplishment predicates.

4. Conclusion

In this chapter, I examined initial points and final points of activities and accomplishments in both Sḵwx̱wú7mesh and English. I showed that Sḵwx̱wú7mesh and English activities behave the same while Sḵwx̱wú7mesh and English accomplishments differ, and thus proposed that accomplishments have different representations in the two languages.

Applying the punctual clause initial point test to English activities, I showed that, as in Sḵwx̱wú7mesh, these clauses induce inceptive readings. As such, I proposed that the

[25] H. Davis (p.c.) claims that English accomplishments do have initial points and that this analysis predicts that they should get either inceptive or culminating readings with punctual clauses. Thus, although it is the case that some native speakers allow both an instantaneous reading and an inceptive reading of accomplishments modified by punctual clauses, both the data in this study, as well as informal elicitation shows that it is not the case that culminating readings are available.

[26] Rothstein uses the shift operation to shift existing predicates to other types of existing predicates. It is not clear that this shift operation would do the same.

representation of English activities is the same as Sḵwx̱wú7mesh activities, namely, they both include an initial point represented as a BECOME event, in addition to a DO sub-event. This differs from Rothstein's representation for English activities, though it does pick up on Smith's intuition that activities do have initial points. As for final points, English and Sḵwx̱wú7mesh activities are the same once again: neither have final points. I used the culmination cancellation and event continuation diagnostics to motivate these claims. This is compatible with Rothstein's analysis of English activities. Although Smith argues that activities require special contexts to be continued, I have shown that this is not necessarily the case.

Applying the punctual clause initial point test to English accomplishments, I have shown that contrary to Sḵwx̱wú7mesh, English accomplishments are usually judged infelicitous when modified by punctual clauses. If they are accepted, it is usually with an instantaneous reading. This contrasts with Sḵwx̱wú7mesh accomplishments that are always judged felicitous and have inceptive, medial and culminating readings (though there is no data yet that shows whether the instantaneous reading is available). As a result, I follow Rothstein, whose representation of English accomplishments have no initial points. However, I have shown that some data suggest that accomplishments may have initial points (along the lines of what Smith claims) and thus a representation for English accomplishments that include initial BECOME events is proposed as well. As for final points, I show that English accomplishments, unlike Sḵwx̱wú7mesh, have final points. Contrary to Sḵwx̱wú7mesh, English accomplishments (according to this study) cannot be continued and their culminations cannot be cancelled without inducing contradiction. As a result, the representation of Sḵwx̱wú7mesh accomplishments and English accomplishments differ. The proposals are summarized in the table below:

(108) *Accomplishments and Activities in English and Sḵwx̱wú7mesh*

	Sḵwx̱wú7mesh	**English (revised)**
Activities	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{BECOME}(P))(e_1) \wedge (\text{DO}(P))(e_2)]$
Accomplishments	$\lambda e.[\text{DO}(P))(e) \wedge [\forall w' [w' \text{ is an inertia world w.r.t. w at the beginning of e} \rightarrow [\exists e' [\text{culminates } (e') \text{ in } w' \wedge e \text{ causes } e' \text{ in } w']]]]]$	$\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge \text{DO}(P)(e_1) \wedge \text{BECOME}(P)(e_2)]$ $\lambda e.\exists e_1 \exists e_2 [e =^s (e_1 \sqcup e_2) \wedge (\text{DO}(P))(e_1) \wedge (\text{BECOME}(P'))(e_2) \wedge \text{INCR}(e_1, e_2, C(e_2))]$

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Appendix A: The Sḵwx̱wú7mesh language

1. Current state

The Sḵwx̱wú7mesh language was traditionally spoken in the Squamish Valley, Howe Sound and Vancouver area of British Columbia, Canada. Today, there are fewer than 15 fluent native speakers, the youngest of whom is in her mid-sixties and the majority of whom live in the North Vancouver area. The Sḵwx̱wú7mesh language program was initiated approximately 30 years ago and the language has been taught in North Vancouver schools for approximately 30 years.

Currently, Sḵwx̱wú7mesh is being taught not only in the North Vancouver public system, but as of 2004, it is being taught in a band-run school. This new school has nursery level classes, but intends to add more levels each year.

2. Pronunciation guide

The data in this thesis is presented in the Squamish Nation official orthography. There has been no attempt here to display any of the phonetic characteristics of the language beyond what can be ascertained from the orthography. Phonological alternations are addressed in the thesis as they are relevant to an understanding of the data. The aim here is that readers interested in looking at data from other sources can straightforwardly compare data from this thesis using this chart as a guide.

To my knowledge, three different orthographies have be used in writing the Sḵwx̱wú7mesh language. The earliest is the orthography developed by Aert Kuipers for his 1967 grammar of the Sḵwx̱wú7mesh language. The second orthography is the one used in Peter Jacobs' (1992) and Elizabeth Currie's (1997) MA theses; it differs from Kuipers's orthography in that it relies on no special fonts, but on characters available on a standard typewriter. The third orthography is the one currently used by the Squamish Nation community (shaded column in the chart below). This orthography differs from the second orthography is minimal ways: the "X" has been replaced by an underlined "x̱" and the "q" has been replaced by an underlined "ḵ".[1] This is the orthography used in all the Sḵwx̱wú7mesh data presented in this thesis. These orthographies are given, along with their

[1] This was revised by Randy Bouchard.

IPA pronunciation counterparts, in the table below; the bolded symbols are those that differ across the orthographies:

(1) *Squamish Nation (SN) Orthographies and IPA counterparts*

Kuipers Orthography	**Jacobs/Currie Orthography**	**Current (official SN) Orthography**	International Phonetic Alphabet
p	p	p	p
p’	p’	p’	p’
m	m	m	m
m’	m’	m’	m’
t	t	t	t
t’	t’	t’	t’
c	ts	**ts**	ts
c’	ts’	**ts’**	ts’
s	s	s	s
n	n	n	n
č	ch	**ch**	tʃ
č	ch’	**ch’**	tʃ’
š	sh	**sh**	ʃ
λ	lh	**lh**	ɬ
λ’	tl’	**tl’**	tl’
l	l	l	l
k	k	k	k
k’	k’	k’	k’
k^{o}	kw	**kw**	k^{w}
k’^{o}	kw’	**kw’**	k’^{w}
x^{o}	xw	**xw**	x^{w}
q	q	**k̲**	q
q’	q’	**k̲’**	q’
q^{o}	qw	**k̲w**	q^{w}
q’^{o}	qw’	**k̲w’**	q’^{w}
x̌	X	**x̲**	χ
x̌^{o}	Xw	**x̲w**	χ^{w}
h	h	h	h
u̲	w	**w**	w
u̲ʔ	w’	**w’**	w’
i̲	y	**y**	j
i̲ʔ	y’	**y’**	j’
ə	e	**e**	ə
i	i	i	i, e, ɛ
u	u	u	u, o, ɔ
a	a	a	a
ʔ	7	**7**	ʔ

3. Morpho-syntactic sketch

This section provides an overview of the relevant morphological and syntactic properties of the Sḵwx̱wú7mesh language. For further details, I refer the reader to the relevant references listed within this section and references therein.

3.1. Word order and headmarking

The unmarked word order in Sḵwx̱wú7mesh is VSO:

(2) [na wa p'ayaḵ-ant-as]$_V$ [ta John]$_S$ [ta-n x̱el'tn]$_O$
[RL IMPERF fix-TR-3ERG] [DET John] [DET-1POSS pencil]
'John's still fixing my pen.'

However, VOS (a) and SVO (b) are observed as well:

(3) a. [na7-t p'ayaḵ-ant-as]$_V$ [ta tetxwem]$_O$ [ta Peter]$_S$
[RL-PAST fix-TR-3ERG] [DET car] [DET Peter]
'Peter fixed the car (yesterday).' VOS

b. [ta swi7ḵa]$_S$ [na kw'ach-nexw-as]$_V$ [kwi slhanay']$_O$
DET man RL look.at-TR(LC)-3ERG DET woman
'The man saw a woman.' SVO

Full DP arguments are optional in Sḵwx̱wú7mesh. Thus, the sentence below is completely grammatical, though it contains no overt arguments:

(4) na p'ayaḵ-ant-as
RL fix-TR-3ERG
'Somebody fixed something.'

If only one DP occurs in a given clause containing a transitive predicate with two third persons, that DP will be interpreted as the object; this is known as the *one-nominal interpretation* (Gerdts 1988 on Halkomelem, a related Coast Salish language). Her generalization is given below:

(5) *One-nominal interpretation*

In the absence of marking for other persons, a single third person nominal is interpreted as the absolutive.

(Gerdts 1988: 59)

The following sentence shows that this generalization holds for Sḵwx̱wú7mesh as well. Note that although pragmatically the overt DP could be interpreted as the subject, it cannot be in this sentence:

(6) na kw'ach-nexw-as alhi slhanay'
RL look.at-TR(LC)-3ERG DEM woman
= 'She saw that lady.'
≠ 'That lady saw her.'

Arguments are obligatorily marked by clitics/affixes on the verb/auxiliary, regardless of the presence of overt DPs. This is illustrated by the data below (the object affix is null):

(7) na7-t p'ayaḵ-ant*(-ø-as) ta tetxwem ta Peter
RL-PAST fix-TR-3OBJ-3ERG DET car DET Peter
'Peter fixed the car (yesterday).'

3.2. DPs

Overt DPs in Sḵwx̱wú7mesh are begin with a determiner. As with many Salish languages, the determiner system in Sḵwx̱wú7mesh encodes gender, presence/absence and proximity. Currie (1997) presents the following classification, suggested by P. Jacobs:

(8) *Sḵwx̱wú7mesh Determiner System*

		Potentially Visible			**Invisible**
		Visible		**Non-Visible**	
		Proximal	**Distal**		
Determiners	**Non-Feminine**	ti	ta	kwa	kwi
	Feminine	tsi	lha	kwelha	kwes
Demonstratives	**Non-Feminine**	tiwa	tay'	kwetsi	kwiya(wa)
	Feminine	tsiwa	7alhi	kwelhi	kwesawa

(Currie 1997:31)

This classification differs from Kuipers (1967) who contrasts definite and indefinite. Gillon (in prog) argues that Sḵwx̱wú7mesh does not exhibit a definite/indefinite distinction in the determiner system (see also Matthewson 1996 on St'át'imcets). Furthermore, Gillon suggests that Sḵwx̱wú7mesh seems to be losing the feminine/masculine distinction in some way: "*lha* no longer appears to be the female counterpart of *ta*: *ta* is still used as 'present', but *lha* is (usually?) used for 'non-present'. Also, the feminine counterpart of *kwi* does not appear to be used very frequently. *kwi* is often given instead" (p. 33).

Determiners in Sḵwx̱wú7mesh can have temporal effects on the DP and consequently the utterance.[2] A determiner can identify the interval of time referred to when the noun itself does not; this is the case below where the determiner identifies which morning we are talking about:

(9)	a.	ti natlh	'this morning'
	b.	ta natlh	'that morning'
	c.	kwa natlh	'yesterday morning'

(Currie 1997:31, ex. 27)

As Currie points out, *ti* identifies the morning closest to now, *ta* identifies a morning past and *kwa* identifies specifically yesterday morning.

Gillon (2003) argues for two types of indefinites in Sḵwx̱wú7mesh with different scope-taking properties, and that the two indefinites are composed in different ways. For a detailed discussion on the Sḵwx̱wú7mesh determiner system see Gillon (2003, in prep). See also Matthewson (1996, 1998) for a detailed discussion of the St'át'imcets determiner system.

3.3. The Salish morphological word

Czykowska-Higgins and Kinkade (1998) present the following morphological template for Salish:

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[2] See Matthewson 1996 and Demirdache 1997 and references therein for discussion of these issues in St'át'imcets (Interior Salish).

(10) PS/S(-)ASP-LOC-RED-ROOT-RED-PA-LS-TR/ITR/CTL-O-S/PS-ASP
(Czykowska-Higgins and Kinkade 1998:23, fig.2)

PS/S refers to possessive markers and (in)transitive subject clitics; ASP includes all aspect prefixes and suffixes; LOC refers to locative prefixes, RED includes reduplicative prefixes and suffixes; PA refers to primary affixes, which is essentially a miscellaneous category, but can include inchoative and stative markers; LS are lexical suffixes, TR/INTR/CTL includes transitive, intransitive, applicative and control markers; O and S refer to object and subject markers. In the following subsections we will examine data from Sḵwx̱wú7mesh that illustrates these properties.

3.3.1. Prefixes

The most common prefixes seen in the data in this thesis are the stative marker *7es-* (a) and the two Sḵwx̱wú7mesh reduplicative prefixes CVC- 'plural' (b) and CV- 'progressive' (c). Examples of each are given below:

(11) a. na **es-ḵw'el** ta smeyts
RL **STAT-cook** DET meat
'The meat is cooked.'

b. chen **tsel-tselḵw'**-an ta smant
1S.SG **REDUP-kick**-TR DET rock
'I'm kicking the rock all the time.'

c. chen wa **kw'a-kw'ay'** ti stsi7s
1S.SG IMPERF **REDUP-hungry** DET today
'I'm hungry today.'

3.3.2. Transitivity

Transitivity is overtly marked in Sḵwx̱wú7mesh by transitivizers (a) and intransitivizers (b):

(12) a. chen x̱el'-**t** ta sx̱wex̱wiy'am'
1S.SG write-**TR** DET story
'I wrote a story.'

b. na x̱ay-**m** lha Mary
RL laugh-**INTR** DET Mary
'Mary laughed.'

Transitivizers in Sḵwx̱wú7mesh also encode control, a notion that Thompson (1979) introduced that denotes the degree of (potential or actual) control the agent has over the event. The table below, taken from Jacobs (1999), shows the complete Sḵwx̱wú7mesh transitivity system:

(13) *Sḵwx̱wú7mesh (In)Transitivity System (Jacobs 1999)*

	Transitive	**Intransitive**	**Reflexive**	**Reciprocal**
Control	-(V)t -(V)n' -s -shit -nit min'	-im'	-sut	-way
Limited/No Control	-n(exw) -nit min'	-(n)alhen -numut	-numut -stenam'ut (causative)	-new'as

Many control transitive-marked predicates have a limited/non-control marked transitive counterparts (where the agent does not have full control over the event). In some cases, there is no difference in translation in out of the blue contexts, as shown by the pair of examples below:

(14) a. chen yetl'ḵ'-**an** ta lam'
1S.SG paint-**TR** DET house
'I painted the house.'

b. chen yetl'ḵ'-**nexw** ta lam'
1S.SG paint-**TR(LC)** DET house
'I painted the house.'

In other cases, limited control marked transitives are translated with "managed to". This is shown below:

(15) a. chen kwelash-**t** ta sx̱wi7shn
1S.SG shoot-**TR** DET deer
'I shot the deer.'

b. chen kwelash-**nexw** ta sxwi7shn
1S.SG shoot-**TR(LC)** DET deer
'I managed to shoot the deer.'

(16) a. chen xewtl'-an ta stsek
1S.SG break-**TR** DET tree
'I broke the stick.'

b. chen xewtl'-**nexw** ta stsek
1S.SG break-**TR(LC)** DET tree
'I managed to break the stick.'

In other cases, speakers volunteer different translations, as illustrated below:

(17) a. chen p'ayak-**an** ta latam
1S.SG fix-**TR** DET table
'I fixed the table.'

b. chen p'ayak-**nexw** ta latam
1S.SG fix-**TR(LC)** DET table
'I got the table fixed.'

See Chapter Two for further discussion of the meaning of a control-marked transitives in Skwxwú7mesh.[3]

3.3.3. Subject and object marking[4]

Predicates are obligatorily marked for subjects and objects (in the case of transitive predicates). Subject marking varies depending on the type of clause and we observe clitics, prefixes and suffixes. The paradigms for three sets (indicative, subjunctive and possessive) are given in the table below; note that the indicative paradigm contains subject clitics, while the subjunctive and possessive paradigms contains affixes:

[3] See also Jacobs (2005) on the Skwxwú7mesh *out of control* marker.
[4] See Kroeber (1999) and Davis (2000) for a detailed discussion of subject marking in Salish.

(18) *Subject Morphology*

	Indicative		Subjunctive		Possessive	
	Singular	**Plural**	**Singular**	**Plural**	**Singular**	**Plural**
1st Person	chen	chet	-(a)n	-(a)t	7n-	-chet
2nd Person	chexw	chap, chayap	-(a)xw	-a(ya)p	7e-	7e-...-yap
3rd Person	Ø, -as	Ø-wit, -as-wit	-as	-as-wit	-s	-s-wit

Object marking is suffixal. The paradigm is given below:

(19) *Object Morphology*

	Singular		Plural
	-nexw verbs	**others**	
1st Person	-msh	-ts	-umulh
2nd Person	-umi		-umi-(y)ap
3rd Person	Ø		(-wit)

In the indicative paradigm, Sḵwx̱wú7mesh exhibits a contrast between third person pronominal markers, which are suffixes that attach to the end of the stem, and first and second person pronominal markers that precede the predicate complex. Sample transitive sentences with indicative subjects are given below:

(20) *Sample Transitive Sentences, singular objects*

	Objects		
Subjects	**1st Person Singular**	**2nd Person Singular**	**3rd Person Singular**
1st Sg.		**chen** ch'aw-at-**umi** 'I helped you'	**chen** ch'aw-at 'I helped him/her'
1st Pl.		**chet** ch'aw-at-**umi** 'We helped you'	**chet** ch'aw-at 'We helped him/her'
2nd Sg.	**chexw** ch'aw-at-**ts** 'You (sg.) helped me'		**chexw** ch'aw-at 'You helped him/her'
2nd Pl.	**chap** ch'aw-at-**ts** 'You (pl.) helped me'		**chap** ch'aw-at You (pl.) helped him/her'
3rd Sg.	na ch'aw-at-**ts-as** 'S/he helped me'	**chexw** ch'aw-at-**m** 'You were helped (by him)'	na ch'aw-at-**as** 'S/he helped him/her'
3rd Pl.	na ch'aw-at-**ts-as-wit** 'They helped me'	**chexw** ch'aw-at-**m(-wit)** 'You were helped (by them)'	na ch'aw-at-**as-wit** 'They helped him/her'

(21) *Sample Transitive Sentences, plural objects*

	Objects		
Subj.	**1st Person Plural**	**2nd Person Plural**	**3rd Person Plural**
1st Sg.		**chen** ch'aw-at-**umi-ap** 'I helped you (pl.)'	**chen** ch'aw-at(**-wit**) 'I helped them'
1st Pl.		**chet** ch'aw-at-**umi-ap** 'We helped you (pl.)'	**chet** ch'aw-at(**-wit**) 'We helped them'
2nd Sg.	**chexw** ch'aw-at-**umulh** 'You (sg.) helped us'		**chexw** ch'aw-at(**-wit**) 'You helped them'
2nd Pl.	**chap** ch'aw-at-**umulh** 'You (pl.) helped us'		**chap** ch'aw-at(**-wit**) You (pl.) helped them'
3rd Sg.	na ch'aw-at-**umulh-as** 'S/he helped us'	**chap** ch'aw-at-**m** 'You (pl.) were helped (by him)'	na ch'aw-at-**as**(**-wit**) 'S/he helped them'
3rd Pl.	na ch'aw-at-**umulh-as-wit** 'They helped us'	**chap** ch'aw-at-**m**(**-wit**) 'You (pl.) were helped (by them)'	na ch'aw-at-**as-wit** 'They helped them'

The bolded cells in the tables above illustrate that in Sḵwx̱wú7mesh, certain combinations of person marking are not possible, namely, 3rd persons acting on 2nd persons. In such cases, the passive construction is invoked (*–m*). Similar patterns in other Salish languages have been argued to be the emergence of a person hierarchy, and in others, a morphological constraint (see Burton and Wiltschko 2004 on Halkomelem).

3.4. Clitics, affixes, auxiliaries and other clause initial elements

3.4.1. *na*

The clitic *na* appears clause initially. It has been labeled a realis marker,[5] but its true function is not completely understood. *na* nearly always surfaces overtly in third person indicative clauses (a), and often surfaces in first and second person clauses for emphasis (b) or to host a suffix, such as *-t* 'past' (c) or *xw* 'still' (d) (when it appears with a clitic/suffix, *na* surfaces as *na7*):

(22) a. **na** ilhen
RL eat
'He ate.'

b. **na** chan ilhen
RL 1S.SG eat
'I already ate.'

[5] See Bar-el et al. (2004) and Krober (1999) for discussion.

c. **na7-t** ilhen
RL-PAST eat
'S/he's finished eating.'

d. **na7-xw** wa x̲ay-m lha Mary
RL-still IMPERF cry-INTR DET Mary
'Mary is still crying.'

3.4.2. *wa*

The auxiliary *wa* is argued in this thesis to be the Sḵwx̲wú7mesh imperfective marker. It appears in between *na*/subject clitic and the verb (a); if the clitic is suffixed with a past tense marker, for example, wa will follow that compelx (b). *wa* induces a variety of meanings (see Chapter Five); in many cases, sentences with *wa* are translated using the English progressive:

(23) a. na **wa** p'aya̲k-ant-as
RL **IMPERF** fix-TR-3ERG
'He's fixing something.'

b. na7-t **wa** ilhen
RL-PAST **IMPERF** eat
'He was eating.'

3.4.3. *mi*

Sentences containing *mi* have a number of interpretations, which is central to the discussion in Chapter Three of this thesis. It occurs in between *na*/subject clitic and the verb (a), and can surface with *wa* as well (b). *mi* can induce a directional reading (b) as well as an inceptive reading of a predicate (c):[6]

(24) a. chen **mi** p'aya̲k-an ta tetxwem
1S.SG **come** fix-TR DET car
'I came to fix the car.'

b. na **wa** **mi** lulum ta swi7k̲a
RL **IMPERF** **come** sing DET man
'The man is coming to sing.'

[6] Kuipers (1967) notes that *mi* can also surface as *'mi*.

c. chen **mi** xay-m
1S.SG **come** laugh-INTR
'I started to laugh.'

3.4.5. xw

The suffix *–xw* corresponds to English 'still'. When *–xw* appears in a first person clause, it also surfaces suffixed to *na* and the entire complex precedes the subject clitic *chen* (b). It usually occurs with *wa* (a-b), but in some cases, can appear without it (c):

(25) a. na7-**xw** **wa** xel'-t-as
RL-**still** **IMPERF** write-TR-3ERG
'He's still writing.'

b. na7-**xw** chen **wa** p'ayak-an
RL-**still** 1S.SG **IMPERF** fix-TR
'I'm still fixing it.'

c. na7-**xw** xem
RL-**still** heavy
'It's still heavy.'

3.4.6. kilh

The word *kilh* corresponds to English 'almost'. It surfaces clause initially, preceding *na* in third person marked clauses (a) and *chen* in first person marked clauses (b):

(26) a. **kilh** na p'ayak-ant-as ta tetxwem
almost RL fix-TR-3ERG DET car
'She almost fixed the car.'

b. **kilh** chen p'ayak-an ta tetxwem
almost 1S.SG fix-TR DET car
'I almost fixed the car.'

3.5. Other types of clauses: negation and nominalized clauses

3.5.1. Negation

The negative morpheme haw occurs clause-initially and is followed by a subjunctive marked clause:[7]

(27) haw **k-an** wa p'ayak-an
NEG **IRR-1CNJ** IMPERF fix-TR
'I didn't fix it yet.'

3.5.2. Nominalized clauses

When-clauses are expressed as nominalized clauses in Skwxwú7mesh, which are introduced by the determiner kwi and (depending on the type of person marking) are followed by the nominalizer –s and a possessive marker; all three are bolded in the example below and the entire nominamized clause is given in brackets:

(28) chen p'ayak-an ta snexwilh
1S.SG fix-TR DET canoe
[**kwi s-es** hiy'am ta Bill]
[**DET NOM-3POSS** come.in DET Bill]
'I fixed the boat when Bill arrived.'

(29) chen huy [**kwi-n-s** ch'ekwx-an ta skawts]
1S.SG finish [**DET-1POSS-NOM** fry-TR DET potato]
'I stopped frying the potatoes.'

3.6. Tense

Skwxwú7mesh has two tense morphemes that occur overtly: *-t* past and *-ek'* future; neither are obligatory:[8]

(30) a. chen-**t** ilhen.
1S.SG-PAST eat
'I ate.'

[7] There are actually two negation patterns in Skwxwú7mesh, only one of which emerges in the data given in this thesis; see Gillon (2002) for detailed discussion of both patterns.
[8] See Bar-el et al. (2004) for a discussion of temporal interpretations in Skwxwú7mesh and Halkomelem, as well as Witschko (2003) and Matthewson (2005) or opposing views on the expression of tense in Salish.

b. chen ilhen
1S.SG eat
'I ate.'

c. chen-**ek'** ilhen
1S.SG-FUT eat
'I'll eat.'

d. ilhen chen
eat 1S.SG
'I'll eat.'

e. ilhen chen-**ek'**
eat 1S.SG-FUT
'I'll eat.'

Appendix B: States

This thesis focuses on only one type of state in Sḵwx̱wú7mesh. There are a number of different types of states that may belong to different predicate classes. The goal of this section is simply to outline the other types of stative predicates in Sḵwx̱wú7mesh and to show why I choose to focus on just one of them.

A well-known distinction between classes of states is the individual-level (I-L)/stage-level distinction (S-L);[1] I-L states are those which denote "permanent" properties (a), while S-L states are those which denote "temporary" properties (b):

(1) a. John is **tall**. (I-L)
b. John is **tired**. (S-L)

In English, this distinction has syntactic effects; for example, only S-L states can occur in the following construction (a) while I-L states cannot (b) (see Kratzer 1995):

(2) a. There are firemen **available**. (S-L)
b. *There are fireman **altruistic**. (I-L)

The contrast between S-L and I-L states seems to be exhibited in Sḵwx̱wú7mesh as well. For example, S-L states occur with the imperfective auxiliary *wa* (a), but I-L states cannot (b):

(3) a. na **wa** **kw'ay'** ta mix̱alh (S-L)
RL **IMPERF** **hungry** DET black.bear
'The bear is hungry.'

b. * na **wa** **hiyi** ta mix̱alh (I-L)
RL **IMPERF** **big** DET black.bear

[1] Interestingly, to my knowledge, no account of aspectual classification has proposed that these two types of states have different representations, or belong to different classes.

Furthermore, in sentences without *wa*, S-L and I-L states are translated differently; S-L states have both inchoative and stative readings (a), while I-L states have only simple stative readings (b):

(4) a. na **t'ayak̲'** lha Mary
RL **angry** DET Mary
(i) 'Mary got angry.'
(ii) 'Mary is angry.'

b. na **hiyi** ta mix̲alh
RL **big** DET black.bear
'The bear is big.'

Statives in Sḵwx̲wú7mesh are also created by the addition of the stative prefix *es-*. Kuipers (1967) suggests that *es-* "has the general meaning 'one who X-es or 'one which is X-ed'. It can often be translated by an English participle or adjective". *es-* in Sḵwx̲wú7mesh creates statives out of non-statives, as shown by the data below:

(5) a. chen **x̲el'**-t ta-n sna7 na7 ta shewálh
1S.SG **write**-TR DET-1POSS name LOC DET door
'I wrote my name on the door.'

b. na **es-x̲el'** ta-n sna7 na7 ta shewálh
RL **STAT-write** DET-1POSS name LOC DET door
'My name is written on the door.'

However, *7es-* cannot attach to predicates that are already statives of some type (that is, neither S-L (a) nor I-L (b)):

(6) a. * na **es-kw'ay'** kw John (S-L)
RL **STAT-hungry** DET John

b. * na **es-7etsim** ta mix̲alh (I-L)
RL **STAT-small** DET black.bear

There are a large number of stative predicates that only appear with additional morphology (simplex forms were not recorded in Kuipers 1967, nor have I been able to elicit them in fieldwork). For example, some states surface with CV reduplication:

(7) a. chen se-selk̲w
1S.SG REDUP-sad
'I'm sad.'

b. * na selk̲w kwa John
RL sad DET John[2]

(8) na melh ts'a7ts'axw-wit
RL just happy-PL
'They were happy.'

Some surface with both CV or CVC reduplication and the stative prefix:

(9) chen es-che-chew'át
1S.SG STAT-REDUP-clever
'I am smart.'

(10) a. chen es-ch'ek̲-ch'ek̲
1S.SG STAT-REDUP-dirty
'I am dirty.'

b. * chen es-ch'ek̲
1S.SG STAT-dirty

I am attempting to classify the "bare" S-L states; that is, I am concerned here with the representations of stage-level statives when they surface without *wa*, rather than with *wa*:

(11) a. na **t'ayak̲'** lha Mary
RL **angry** DET Mary
'Mary got angry.'

b. na **wa** **t'ayak̲'** ta swi7k̲a
RL **IMPERF** **angry** DET man
'The man is angry.'

Stative predicates is an area that requires a great deal more research in Sk̲wx̲wú7mesh.

[2] This predicate has been recorded with the auxiliary *wa*.